

# Danielle S. Bassett, Ph.D.

Prepared 11/13/2018

---

Eduardo D. Glandt Faculty Fellow, Associate Professor, University of Pennsylvania  
Primary: Department of Bioengineering  
Secondary: Departments of Physics & Astronomy, Electrical & Systems Engineering, and Neurology  
210 S. 33rd Street, 240 Skirkanich Hall, Philadelphia, PA 19104-6321  
Phone: (805) 452 4245; Email: [dsb@seas.upenn.edu](mailto:dsb@seas.upenn.edu); URL: [www.danisbassett.com](http://www.danisbassett.com)

---

## ACADEMIC EMPLOYMENT:

---

The University of Pennsylvania Eduardo D. Glandt Faculty Fellow Associate Professor Department of Bioengineering	Philadelphia, PA March '16 – present
The University of Pennsylvania Skirkanich Assistant Professor of Innovation Tenure-Track Assistant Professor Department of Bioengineering	Philadelphia, PA Sept '13 – March 16
The University of California Santa Barbara Sage Junior Research Fellow Departments of Physics & Psychological and Brain Sciences Sage Center Director: Michael S. Gazzaniga	Santa Barbara, CA Fall '11 – Fall '13
The University of California Santa Barbara Postdoctoral Research Associate Department of Physics Institute for Collaborative Biotechnologies Supervisor: Prof. Jean Carlson	Santa Barbara, CA Fall '09 – Fall '11

## EDUCATION:

---

The University of Cambridge (UoC), King's College PhD in Physics (awarded July 2009) Advisors: Dr. Thomas Duke (UoC), Dr. Ed Bullmore (UoC), Dr. Andreas Meyer-Lindenberg (NIMH) Funded by the NIH-University of Cambridge Health Science Scholarship	Cambridge, UK Fall '05 – Fall '09
The University of Cambridge (UoC), Churchill College Certificate in Postgraduate Studies in Physics (CPGS) Funded by Winston Churchill Scholarship and the NIH-University of Cambridge Health Science Scholarship	Cambridge, UK Fall '04 – Fall '05
The Pennsylvania State University - Schreyer Honors College Graduated With Distinction Honors B.S. in Physics, Minor in Mathematics Honors in Physical Chemistry of Synthetic Cells	State College, PA Spring '01- May '04
The Reading Hospital School of Nursing Completed 1.5/3 years towards R.N. degree	Reading, PA Fall '99 - Fall '00

## AWARDS AND ACHIEVEMENTS:

---

### ACADEMIC ACHIEVEMENT AWARDS:

Erdos Renyi Prize in Network Science	June, 2018
Lagrange Prize, in Complex Systems Theory	Oct, 2017
Popular Science, Brilliant 10	Sept, 2016
Eduardo D. Glandt Faculty Fellow	July, 2016
National Science Foundation CAREER award	Feb, 2016
Distinguished Research Fellow of the Annenberg Public Policy Center	Nov, 2015
Harvard Higher Education Leader	May, 2015
ONR Young Investigator	April, 2015
IEEE EMBS Academic Early Career Achievement Award	April, 2015
MacArthur Fellow	Sept, 2014
Alfred P. Sloan Research Fellow	Jan, 2014
Skirkanich Assistant Professor of Innovation	Sept, 2013
American Psychological Society "Rising Star"	Dec, 2012
Alumni Achievement Award, Schreyer Honors College, PSU	Jan, 2012
Award for extraordinary professional accomplishment under 35 yr. of age	
Daryl & Marguerite Errett Discovery Award in Biomedical Research	May, 2011
Sage Junior Research Fellow	March, 2011
NIH-University of Cambridge Health Science Scholar	2004
Winston Churchill Scholar, University of Cambridge, UK	2004
Fulbright Scholarship (Declined)	2004
The Paul Axt Prize	2004
Most Achieving Undergraduate Woman of the Year	2004
Society for Distinguished Alumni Scholarship	2004
Academic Achievement Awards: Eberly College of Science	2002-2004
Schreyer Honors Scholar	2002-2004
John and Elizabeth Holmes Teas Scholarship, Department of Physics	2002-2003
Paul Morrow Scholarship, Department of Engineering	2001
Academic Achievement Award in Physics	2002

### POSTDOCTORAL TRAVEL AWARDS:

Travel Grant Award SIAM UQ2012	April, 2012
Travel Grant Award OHBM 2010 conference	June, 2010
Travel Grant Award SAMSI Workshop on Complex Networks	Sept, 2010
Travel Grant Award New Horizons 2010 conference	Dec, 2010

## AFFILIATIONS:

---

APS (American Physical Society); OHBM (Organization for Human Brain Mapping); SfN (Society for Neuroscience); SIAM (Society for Industrial and Applied Mathematics); IEEE EMBS (Engineering in Medicine and Biology Society); ISMRM (International Society for Magnetic Resonance in Medicine)

## INVITED LECTURES & PRESENTATIONS:

---

### Future:

Georgia Tech – Emory	Nov 28, 2018	Atlanta, GA
Duke University	Dec 7, 2018	Raleigh, NC
Curiosity Symposium	Dec 8, 2018	Philadelphia, PA
Stanford University	Jan 28, 2019	Palo Alto, CA
Theory of Biological Systems, Emory University	Jan 17, 2019	Atlanta, GA
John Hopkins Applied Physics Laboratory	Feb 7, 2019	Baltimore, MD

Children's Hospital of Pennsylvania	Feb 20, 2019	Philadelphia, PA
Santa Fe Institute	Feb 12, 2019	Santa Fe, NM
CoSyne	March 4, 2019	Lisbon, Portugal
IEEE EMBS Neural Engineering Conference	Mar 22, 2019	Los Angeles, CA
NIH Computational Neuroscience Symposium	April 19, 2019	Bethesda, MD
Sackler Colloquium	May 2, 2019	Arlington, VA
SIAM DS19	May 20, 2019	Snowbird, UT
Organization of Human Brain Mapping	June 12, 2019	Rome, Italy
Summer Institute in Cognitive Neuroscience	June 26, 2019	Santa Barbara, CA
Max Plank – Particulate Networks Conference	July 9, 2019	Dresden, Germany
American Controls Conference	July 11, 2019	Philadelphia, PA
Trinity College Dublin	August 14, 2019	Dublin, Ireland
Brown University	Sept 26, 2019	Rhode Island
Eberly College of Science 2020 Commencement	May 9, 2020	State College, PA

**Past:**

<i>Computational Psychiatry Minisymposium</i>	Nov 3, 2018	San Diego, CA
<i>NIDA-NIAAA MiniConvention</i>	Nov 2, 2018	San Diego, CA
<i>UC San Diego, Data Science Institute</i>	Nov 1, 2018	San Diego, CA
<i>John D. and Catherin T. MacArthur Forum</i>	Oct 11, 2018	Chicago, IL
<i>Motor Brewing Company</i>	Oct 10, 2018	Chicago, IL
<i>Cognitive Computational Neuroscience</i>	Sept 8, 2018	Philadelphia, PA
<i>Schrodinger at 75 – The future of biology</i>	Sept 5, 2018	Dublin, Ireland
<i>Lockheed Martin</i>	Aug 16, 2018	Cherry Hill, NJ
<i>SIAM Annual Meeting</i>	July 12, 2018	Portland, Oregon
<i>The Cognitive Neurosciences Summer Institute</i>	July 7, 2018	Tahoe, NV
<i>Neuroergonomics</i>	June 28, 2018	Philadelphia, PA
<i>NetSci</i>	June 14, 2018	Paris, France
<i>Center for Neural Modulation of Depression &amp; Stress</i>	June 4, 2018	Philadelphia, PA
<i>Analysis and Interpretation of Connectomes</i>	May 21, 2018	Ashburn, VA
<i>MIT Media Lab</i>	May 15, 2018	Boston, MA
<i>University of California Berkeley</i>	May 3, 2018	Berkeley, CA
<i>Yale University</i>	April 23, 2018	New Haven, CN
<i>Penn BBB109 Guest Lecture</i>	April 18, 2018	Philadelphia, PA
<i>Penn CBICA Guest Lecture</i>	April 18, 2018	Philadelphia, PA
<i>Quaker Days BFS Faculty Spotlight Lecture</i>	April 18, 2018	Philadelphia, PA
<i>Cerebral Cortex 3.0: Complexity and Computation</i>	April 8, 2018	Frankfurt, Germany
<i>Neuropsychological Society</i>	Mar 28, 2018	Philadelphia, PA
<i>University College London</i>	Mar 20, 2018	London, UK
<i>Royal Society in Chicheley Hall</i>	Mar 21, 2018	Buckinghamshire, UK
<i>LIBi Symposium</i>	Mar 12, 2018	Philadelphia, PA
<i>CoSyne</i>	Mar 6, 2018	Denver, CO
<i>American Physical Society</i>	Mar 7, 2018	Los Angeles, CA
<i>Haverford College</i>	Feb 28, 2018	Haverford, PA
<i>Columbia University</i>	Feb 27, 2018	New York NY
<i>NIMBIOS</i>	Feb 22, 2018	Knoxville, TN
<i>Center for the Neural Basis of Cognition</i>	Feb 1, 2018	Pittsburgh, PA
<i>Aix Marseille University</i>	Jan 26, 2018	Marseille, France
<i>Esther Klein Gallery</i>	Jan 19, 2018	Philadelphia, PA
<i>Pearlman School of Medicine, Dept. of Neurology</i>	Jan 17, 2018	Philadelphia, PA
<i>Mission Critical Teams</i>	Jan 12, 2018	Philadelphia, PA
<i>Pearlman School of Medicine, Dept. of Radiology</i>	Dec 19, 2017	Philadelphia, PA
<i>Harvard University</i>	Dec 12, 2017	Boston, MA
<i>Computational Neuroscience Initiative</i>	Dec 5, 2017	Philadelphia, PA
<i>Boston Univ BME Distinguished Seminar</i>	Dec 1, 2017	Boston, MA

<i>Network Neuroscience of Curiosity</i>	Nov 17, 2017	Philadelphia, PA
<i>Computational Psychiatry Workshop (SfN)</i>	Nov 10, 2017	Washington, DC
<i>23rd Annual Shih-I Pai Lecture, U Maryland</i>	Oct 17, 2017	College Park, MD
<i>IEEE TechEthics</i>	Oct 13, 2017	Washington, DC
<i>Conference on Complex Systems</i>	Sept 21, 2017	Cancun, Mexico
<i>ESAP Guest Lecture</i>	July 11, 2017	Philadelphia, PA
<i>Summer School on Theoretical Biophysics</i>	July 7, 2017	Cargese, Corsica
<i>OHBM "Individual Differences in Networks"</i>	June 27, 2017	Vancouver, CA
<i>OHBM Skeptics Workshop</i>	June 25, 2017	Vancouver, CA
<i>NetSci Keynote</i>	June 21, 2017	Indianapolis, IN
<i>NetSci Satellite, Network Neuroscience Plenary</i>	June 20, 2017	Indianapolis, IN
<i>Princeton University</i>	June 16, 2017	Princeton, NJ
<i>Interdisciplinary Mind-Brain Summer Workshop</i>	June 15, 2017	Philadelphia, PA
<i>Intl Conf on Mathematical Neuroscience</i>	May 31, 2017	Boulder, CO
<i>NIH Director's Lectureship</i>	May 16, 2017	Bethesda, MD
<i>Keynote at IRTG 2150</i>	April 26, 2017	Philadelphia, PA
<i>NU Network Science Institute, Distinguished</i>	April 24, 2017	Boston, MA
<i>Drexel University Biomed Seminar</i>	April 19, 2017	Philadelphia, PA
<i>ASEF Distinguished Spring Speaker</i>	April 13, 2017	Philadelphia, PA
<i>Penn Biostats Guest Lecture</i>	April 12, 2017	Philadelphia, PA
<i>Penn CBICA Guest Lecture</i>	April 12, 2017	Philadelphia, PA
<i>Penn BBB109 Guest Lecture</i>	April 12, 2017	Philadelphia, PA
<i>Wiring the Brain</i>	April 5, 2017	Cold Spring Harbor
<i>Cognitive Neuroscience Society</i>	Mar 25, 2017	San Francisco, CA
<i>Council for Women of Penn Psychology</i>	March 21, 2017	Philadelphia, PA
<i>Keystone Connectomics Symposium</i>	Mar 8, 2017	Santa Fe, NM
<i>Penn's Academy Weekend</i>	Mar 4, 2017	West Palm Beach, FL
<i>Psychiatry Grand Rounds HUP</i>	Mar 2, 2017	Philadelphia, PA
<i>Thomas Jefferson, Neurology Grand Rounds</i>	Feb 24, 2017	Philadelphia, PA
<i>Carnegie Mellon Philosophy Department</i>	Feb 13, 2017	Pittsburgh, PA
<i>Princeton University Neuroscience Institute</i>	Feb 16, 2017	Princeton, NJ
<i>Imagination Institute, Appl Math &amp; Eng Retreat</i>	Feb 4, 2017	Philadelphia, PA
<i>GABE BETA Day</i>	Jan 27, 2017	Philadelphia, PA
<i>Center for Neuroengineering and Therapeutics</i>	Jan 27, 2017	Philadelphia, PA
<i>NYU Swartz Lecture</i>	Jan 20, 2017	New York NY
<i>Alpine Brain Imaging Meeting</i>	Jan 8 2017	Geneva, Switzerland
<i>Dynamics Days</i>	Jan 4, 2017	Silver Spring, MD
<i>Isaac Newton Institute, "Dynamic Networks"</i>	Dec 12, 2016	Cambridge, UK
<i>Curiosity Symposium</i>	Dec 9, 2016	Philadelphia, PA
<i>IEEE Global SIP Plenary</i>	Dec 8, 2016	Arlington, VA
<i>UC Irvine Distinguished Lecture</i>	Dec 5, 2016	Irvine, CA
<i>American College of Neuropsychopharmacology</i>	Dec 6, 2016	Hollywood, FL
<i>Center for Autism Research</i>	Nov 14, 2016	Philadelphia, PA
<i>SfN Short Course on Neural Data Science</i>	Nov 11, 2016	San Diego, CA
<i>Control Processes Conference</i>	Nov 10, 2016	San Diego, CA
<i>International Workshop on Advances in ECoG</i>	Nov 10, 2016	San Diego, CA
<i>Haverford College</i>	Nov 2, 2016	Haverford, PA
<i>NYE ECE Colloquium</i>	Oct 27, 2016	New York NY
<i>Hampshire College</i>	Oct 17, 2016	Amherst, MA
<i>Bernstein Computational Neuroscience Conference</i>	Sept 23, 2016	Berlin, Germany
<i>Central Institute of Mental Health</i>	Sept 22, 2016	Mannheim, Germany
<i>Defense Science Board 60<sup>th</sup> Anniversary</i>	Sept 20, 2016	Pentagon City, DC
<i>Department of Physics, UPenn</i>	Sept 14, 2016	Philadelphia, PA
<i>FLUX: Developmental Cognitive Neuroscience</i>	Sept 8, 2016	St Louis, MI
<i>IEEE-EMBS: Plenary</i>	Aug 16, 2016	Orlando, FL
<i>ESAP Guest Lecture</i>	July 6, 2016	Philadelphia, PA

<i>National Science Foundation</i>	June 30, 2016	Arlington, VA
<i>Penn Network Visualization Program</i>	June 21, 2016	Philadelphia, PA
<i>Office of Naval Research</i>	June 13, 2016	Amherst, MA
<i>Duke University</i>	June 1, 2016	Raleigh, NC
<i>IT Staff Convention</i>	May 20, 2016	Philadelphia, PA
<i>National Institutes of Health</i>	May 6, 2016	Bethesda, MD
<i>Temple University</i>	April 20, 2016	Philadelphia, PA
<i>Penn BBB109 Guest Lecture</i>	April 19, 2016	Philadelphia, PA
<i>Westtown: Shoemaker Lecture</i>	April 17, 2016	West Chester, PA
<i>Army Research Laboratory</i>	April 12, 2016	Aberdeen, MD
<i>MBI: Workshop on Control and Observability of Network Dynamics</i>	April 11, 2016	Chicago, IL
<i>Royal Society: Applying Computational Modeling to Clinical Neuroscience</i>	April 7, 2016	London, UK
<i>British Applied Mathematics Conference: Plenary</i>	April 6, 2016	Oxford, UK
<i>Washington University Physics Colloquium</i>	Mar 30, 2016	St Louis, MI
<i>MBI: Workshop on Generalized Network Structures and Dynamics</i>	Mar 23, 2016	Columbus, OH
<i>GEARS Day</i>	Mar 19, 2016	Philadelphia, PA
<i>3rd Biennial Whistler Workshop on Brain Function</i>	Mar 6, 2016	Whistler BC, Canada
<i>Annenberg Public Policy Center</i>	Feb 16, 2016	Philadelphia, PA
<i>Department of Economics, U Pennsylvania</i>	Feb 19, 2016	Philadelphia, PA
<i>Weill Cornell Medical College</i>	Feb 18, 2016	New York, NY
<i>Center for Curiosity</i>	Feb 17, 2016	Philadelphia, PA
<i>Walden School</i>	Feb 10, 2016	Media, PA
<i>Department of Physics, U Pennsylvania</i>	Jan 27, 2016	Philadelphia, PA
<i>Rice University Bioengineering Department</i>	Jan 19, 2016	Houston, TX
<i>Yale Institute for Network Science</i>	Dec 16, 2015	New Haven, CT
<i>Amer. Epilepsy Society Merritt-Putnam Symposium</i>	Dec 5, 2015	Philadelphia, PA
<i>Engaging Minds</i>	Dec 4, 2015	New York, NY
<i>University of Florida - IEEE-EMBS Distinguished Early Career Lecture</i>	Nov 30, 2015	Gainesville, FL
<i>Hospital University of Pennsylvania</i>	Nov 24, 2015	Philadelphia, PA
<i>Neuroscience Public Lecture</i>	Nov 19, 2015	Philadelphia, PA
<i>The Quadrangle</i>	Nov 17, 2015	Haverford, PA
<i>Children's Hospital of Philadelphia</i>	Nov 5, 2015	Philadelphia, PA
<i>University of Chicago</i>	Oct 22, 2015	Chicago, IL
<i>Cell Symposia: Engineering the Brain</i>	Oct 15, 2015	Chicago, IL
<i>SfN Symposium: Brain Stimulation Based Neural Circuits Modeling</i>	Oct 16, 2015	Chicago, IL
<i>New Jersey Institute of Technology</i>	Sept 25, 2015	Newark, NJ
<i>NecSys</i>	Sept 10, 2015	Philadelphia, PA
<i>Janelia</i>	August 24, 2015	Ashburn, VA
<i>IEEE Philadelphia Chapter</i>	August 10, 2015	Philadelphia, PA
<i>MidAtlantic Soft Materials, University of Maryland</i>	July 29, 2015	College Park, MD
<i>GNSI at Arcadia University</i>	July 8, 2015	Glenside, PA
<i>American Control Conference</i>	July 1, 2015	Chicago, IL
<i>Summer Institute in Cognitive Neuroscience</i>	June 25, 2015	Santa Barbara, CA
<i>Bryn Mawr</i>	June 8, 2015	Bryn Mawr, PA
<i>Defects, Deformations, and Diagnosis (PICSL)</i>	May 28, 2015	Philadelphia, PA
<i>New York University</i>	May 12, 2015	New York, NY
<i>SIAM NetSci – Invited Talk</i>	May 16, 2015	Snowbird, UT
<i>SIAM NetSci</i>	May 17, 2015	Snowbird, UT
<i>Institute for Advanced Study</i>	April 18, 2015	Princeton, NJ
<i>International Symposium on Biomedical Imaging</i>	April 16, 2015	New York, NY
<i>Dartmouth College, Thayer School of Engineering</i>	April 2, 2015	Hanover, NH

<i>Philadelphia Neurological Society:</i>	Feb 19, 2015	Philadelphia, PA
<i>NSF SBE Fall Advisory Committee Meeting</i>	Oct 31, 2014	Alexandria, VA
<i>Indiana University Bloomington</i>	Sept 8, 2014	Bloomington, IN
<i>University of Pennsylvania - IRCS Seminar</i>	Sept 19, 2014	Philadelphia, PA
<i>Bernstein Center for Computational Neuroscience</i>	Jun 11, 2014	Berlin, Germany
<i>NetSci – Satellite Workshop</i>	Jun 3, 2014	Berkeley, CA
<i>2014 (SIB) &amp; Vision Sciences TGs Retreat</i>	Jun 4, 2014	Philadelphia, PA
<i>NSF Workshop on QTLMD</i>	May 9, 2014	Arlington, VA
<i>University of Pennsylvania</i>	April 24, 2014	Philadelphia, PA
<i>University of Pennsylvania - MINS</i>	April 2, 2014	Philadelphia, PA
<i>Cold Spring Harbor Laboratory</i>	April 6, 2014	CSH, NY
<i>CoSyne - Discovering Structure in Neural Data</i>	March 4, 2014	Snowbird, UT
<i>Rochester Institute of Technology</i>	Feb 20, 2014	Rochester, NY
College of Science, Distinguished Speaker		
<i>Northwestern University</i>	Dec 4, 2013	Chicago, IL
<i>Moss Rehabilitation Research Institute</i>	Dec 11, 2013	Philadelphia, PA
<i>Society for Neuroscience</i>	Nov 11, 2013	San Diego, CA
<i>Society for Neuroscience</i>	Nov 13, 2013	San Diego, CA
<i>Army Research Laboratory</i>	Nov 4, 2013	Potomac, MD
<i>Princeton University</i>	Nov 1, 2013	Princeton, NJ
<i>Florida Atlantic University</i>	Oct 8, 2013	Boca Raton, FL
<i>Syracuse University</i>	Sept 27, 2013	Syracuse, NY
<i>Lieber Institute</i>	Sept 25, 2013	Baltimore, MD
<i>University of Pennsylvania</i>	Sept 24, 2013	Philadelphia, PA
<i>John Hopkins University</i>	Sept 4, 2013	Baltimore, MD
<i>Oxford University</i>	July 9, 2013	Oxford, UK
<i>SIAM: Applications of Dynamical Systems</i>	May 20, 2013	Snowbird, UT
<i>Sage JRF Workshop</i>	April 22, 2013	Santa Barbara, CA
<i>Princeton University: Physics Seminar</i>	March 8, 2013	Princeton, NJ
<i>Stonybrook University: Laufer Center Seminar</i>	March 7, 2013	Stony brook, NY
<i>University of California Irvine: Physics Seminar</i>	Feb 25, 2013	Irvine, CA
<i>University of Pennsylvania: ESE &amp; BE Colloquium</i>	Feb 21, 2013	Philadelphia, PA
<i>Penn State University: Physics Colloquium</i>	Feb 19, 2013	University Park, PA
<i>Princeton University: PACM &amp; MAE Seminar</i>	Feb 15, 2013	Princeton, NJ
<i>Carnegie Mellon University: Bioengineering</i>	Feb 12, 2013	Pittsburgh, PA
<i>Ohio State University: Computer Science</i>	Feb 7, 2013	Columbus, OH
<i>Emory: Physics Colloquium</i>	Jan 28, 2013	Atlanta, GA
<i>UNC: Applied Mathematics Colloquium</i>	Jan 24, 2013	Chapel Hill, NC
<i>Harvard: WAM Seminar</i>	Jan 22, 2013	Boston, MA
<i>University of Oregon: Mathematics and Biology</i>	Jan 15, 2013	Eugene, OR
<i>University of Michigan: CSCS</i>	Nov 27, 2012	Ann Arbor, MI
<i>University of North Carolina Chapel Hill</i>	Nov 9, 2012	Raleigh, NC
<i>Cornell: Applied Math Colloquium</i>	Sept 7, 2012	Ithaca, NY
<i>Institute for the Applications of Mathematics</i>	June 21, 2012	Riverside, CA
<i>Center for Imaging of Neurodegenerative Diseases</i>	June 2, 2012	San Francisco, CA
<i>UCSB Physics Colloquium</i>	May 29, 2012	Santa Barbara, CA
<i>Penn State Physics Department Special Seminar</i>	March 29, 2012	University Park, PA
<i>UCSB Mechanical Engineering Seminar</i>	March 14, 2012	Santa Barbara, CA
<i>Cornell University: Biomedical Imaging</i>	March 7, 2012	Manhattan, NY
<i>Yale: Swartz Program in Theoretical Neurobiology</i>	Oct 28, 2011	New Haven, CT
<i>Virginia Tech Physics Colloquium</i>	Sept 12, 2011	Blacksburg, VA
<i>KITP Mini-Program</i>	August 3, 2011	Santa Barbara, CA
<i>University of Glasgow</i>	June 10, 2011	Glasgow, UK
<i>University of Minnesota CNR Colloquium</i>	March 22, 2011	Minneapolis, MN
<i>University of Minnesota CMRR Colloquium</i>	March 21, 2011	Minneapolis, MN
<i>International Imaging Genetics Conference</i>	January 17, 2011	UC Irvine, CA

<i>Virginia Tech Physics Colloquium</i>	January 14, 2011	Blacksburg, VA
<i>Virginia Tech Carilion Institute Colloquium</i>	January 13, 2011	Roanoke, VA
<i>SAMSI Dynamics of Networks Workshop</i>	January 10, 2011	Raleigh, NC
<i>INFORMS</i>	Nov 8, 2010	Austin, TX
<i>INFORMS</i>	Nov 10, 2010	Austin, TX
<i>Neuroimaging Tech for Optimizing Performance</i>	Sept 24, 2010	Alexandria, VA
<i>Brain Connectivity Workshop 2010</i>	June 2, 2010	Berlin, Germany

### Teaching Presentations

<i>SFN Short Course on Neural Data Science</i>	Nov 11, 2016	San Diego, CA
<i>The UCLA Advanced Neuroimaging Summer Prg.</i>	July 2011	Los Angeles, CA
<i>UCSB Course Lecture, "Special Topics" psy594LN</i>	April 18, 2011	Santa Barbara, CA
<i>Society for Neuroscience Short Course</i>	Nov 12, 2010	San Diego, CA
<i>The UCLA Advanced Neuroimaging Summer Prg.</i>	July 20, 2010	Los Angeles, CA
<i>The 4th APCTP-KAIST School for Brain Dynamics</i>	December 12, 2009	Daejeon, South Korea

## PEER REVIEW PROCESS:

---

### Proposal Review Panels:

*Standing Panel:* Board of Scientific Counselors, National Institute of Mental Health (2018-2023)

*Standing Panel:* MABS, NIH 2017-2020.

*Ad-Hoc Panels:* NSF CAREER Panel (2014), NSF Brain Initiative Panel (2015), NSF CISE Panel (2015), NIH R01 Brain Initiative (2016), NIH MABS (2016), NSF CAREER ad hoc reviewer (2016), NSF PLS (2017), NSF MABS (2017), NIH R01 Brain Initiative (2017).

**Reviewer for 34 journals:** American Journal of Psychiatry, Behavioral Brain Research, Biological Psychiatry, Brain, Brain Structure and Function, Cerebral Cortex, Clinical NeuroImage, Cortex, Frontiers in Human Neuroscience, Frontiers in Systems Neuroscience, Human Brain Mapping, Journal of Neurophysiology, Journal of Neuroscience, Journal of Neuroscience Methods, Journal of Royal Society Interface, Lancet Neurology, Nature, Nature Communications, Nature Neuroscience, Network Science, NeuroImage, Neuroinformatics, Neuron, New England Journal of Medicine, Nonlinearity, PLoS Computational Biology, PLoS One, Physica D, Physical Letters A, Physical Review Letters, Proceedings of the National Academy of Sciences (PNAS), Schizophrenia Bulletin, SIAM Review, Transactions on Biomedical Engineering, Trends in Cognitive Science (TICS).

### Current Positions:

**Senior Editor:** Network Neuroscience (MIT press, inaugural team).

**Guest Editor:** Proceedings of the National Academy of Sciences (PNAS), PLoS Computational Biology

**Associate Editor:** IEEE Transactions on Network Science and Engineering

**Editor:** Journal of Complex Networks (Oxford University Press; inaugural editorial team), Computational Psychiatry (MIT Press; inaugural editorial board)

### Past Positions:

**Associate Editor:** IEEE Journal on Translational Engineering in Health and Medicine (2015-2017)

**Editor:** Frontiers in Physics, Frontiers in Physiology

## PUBLICATIONS:

(h-Index of 51, >14,800 citations; <http://scholar.google.com/citations?hl=en&user=siYpAPsAAAAJ>)

---

### *Books or Monographs Under Contract (1)*

1. *Curious Minds*, by **Danielle Bassett** and Perry Zurn (Boston: MIT Press, 2018).

*In Prep (13)*

60. Daniel J. Lurie, Daniel Kessler, **Danielle S. Bassett**, Richard F. Betzel, Michael Breakspear, Shella Keilholz, Aaron Kucyi, Raphaël Liégeois, Martin A. Lindquist, Anthony Randal McIntosh, Russell A. Poldrack, James M. Shine, William Hedley Thompson, Natalia Z. Bielczyk, Linda Douw, Dominik Kraft, Robyn L. Miller, Muthuraman Muthuraman, Lorenzo Pasquini, Adeel Razi, Diego Vidaurre, Hua Xie, Vince D. Calhoun. On the nature of resting fMRI and time-varying functional connectivity. In Preparation.
59. Hao-Ting Wang, Jonathan Smallwood, Janaina Mourao-Miranda, Theodore D. Satterthwaite, **Danielle S. Bassett**, Danilo Bzdok. Finding the needle in high dimensions: A tutorial on canonical correlation analysis. In Preparation.
58. Perry Zurn, **Danielle S. Bassett**. Opportunities that literary and philosophical texts present for neuroscience research. Commissioned by eLife.
57. Perry Zurn, **Danielle S. Bassett**. Network architectures supporting learnability. Commissioned by Philosophical Transactions B.
56. Chang-Hao Kao, Ankit N. Khambhati, **Danielle S. Bassett**, Joshua I. Gold, Joseph Kable. Dynamic functional brain network reconfiguration during the adaptive updating of beliefs.
55. Nicolas H. Christianson, Ann Sizemore-Blevins, **Danielle S. Bassett**. Architecture and evolution of semantic networks in mathematics texts.
54. Arian Ashourvan, Sergio Pequito, Maxwell Bertolero, Jason Z. Kim, **Danielle Bassett**, and Brian Litt. Uncovering large-scale cortical dynamics and its unknown drivers via dynamical systems framework.
53. Arian Ashourvan, Christopher W. Lynn, Preya Shah, Adam Pines, Shi Gu, **Danielle S. Bassett**, Kathryn A. Davis, Brian Litt. A pairwise maximum entropy model uncovers the white matter scaffold underlying emergent dynamics in intracranial EEG.
52. Lohith Kini, Preya Shah, Timothy H. Lucas, Kathryn A. Davis, **Danielle S. Bassett**, Brian Litt. Virtual cortical resection guides surgical planning in drug-resistant epilepsy. In Preparation.
51. Maxwell Bertolero, Ann E. Sizemore, Graham Baum, Ruben C. Gur, Raquel E. Gur, David R. Roalf, Theodore D. Satterthwaite, **Danielle S. Bassett**. Functional connectivity is modularly represented in the genome. In Preparation.
50. Evelyn Tang, David R. Roalf, Kosha Ruparel, Ruben C. Gur, Raquel E. Gur, Theodore D. Satterthwaite, Fabio Pasqualetti, and **Danielle S. Bassett**. The control of brain network dynamics across diverse scales of space and time. In preparation.
49. Abigail Poteshman, Lia Papadopolous, Evelyn Tang, **Danielle S. Bassett**, Lee C. Bassett. Network architecture of energy landscapes in mesoscopic quantum systems. In preparation.
48. Raphael T. Gerraty, Madeleine Sharp, Amanda Buch, **Danielle S. Bassett**, Daphna Shohamy. Dopamine modulates learning-related changes in dynamic striatal-cortical connectivity: evidence from Parkinson's disease. In preparation.

*Submitted (47)*

47. Marie-Constance Corsi, Mario Chavez, Denis Schwartz, Nathalie George, Laurent Hugueville, Ari E. Khan, Sophie Dupont, **Danielle S. Bassett**, and Fabrizio, De Vico Fallani. Spatiotemporal neural correlates of brain-computer interface learning. Submitted.

46. Preya Shah, Lohith Kini, John Bernabei, **Danielle S. Bassett**, Jacqueline Boccanfuso, Ryan Archer, Kelly Oechsel, Arian Ashourvan Kathryn Davis, Brian Litt. High interictal connectivity within resection zone is associated with favorable post-surgical outcomes in focal epilepsy patients. Submitted.
45. David M. Lydon-Staley, Perry Zurn, **Danielle S. Bassett**. Inconsistent Curiosity: Augmentation and Blunting of Curiosity in Daily Life and Implications for Well-Being. Submitted.
44. Lucy R. Chai, **Danielle S. Bassett**. Evolution of semantic networks in biomedical texts. Submitted.
43. Fabio Pasqualetti, Shi Gu, **Danielle S. Bassett**. Re: Warnings in Brain Controllability. NeuroImage, Invited Response to previously published critique.
42. Azeez Adebimpe, Maxwell Bertolero, Ankit N. Khambhati, Marcelo G. Mattar, Daniel Romer, Sharon L. Thompson-Schill, **Danielle S. Bassett**. Dynamic constraints on activity and connectivity during the learning of value. Submitted.
41. David Lydon-Staley, Ian Barnett, Theodore D. Satterthwaite, **Danielle S. Bassett**. Digital phenotyping for psychiatry: Accommodating data and theory with network science methodologies. Invited at Current Opinions in Biomedical Engineering for a special issue on Digital Phenotyping.
40. Won Hee Lee, Amanda Rodrigue, David C. Glahn, **Danielle S. Bassett**, Sophia Frangou. Structural brain network controllability is heritable and predicts cognitive variation in healthy adults. Submitted.
39. Tommaso Menara, Giacomo Baggio, **Danielle S. Bassett**, and Fabio Pasqualetti. Exact and Approximate Stability Conditions for Cluster Synchronization of Kuramoto Oscillators. American Controls Conference, 2018.
38. Zaixu Cui, Jennifer Stiso, Graham L. Baum, Jason Z. Kim, David R. Roalf, Richard F. Betzel, Shi Gu, Zhixin Lu, Cedric H. Xia, Rastko Ciric, Tyler M. Moore, Russell T. Shinohara, Kosha Ruparel, Raquel E. Gur, Ruben C. Gur, **Danielle S. Bassett**, Theodore D. Satterthwaite. Optimization of Energy State Transition Trajectory Supports the Development of Executive Function During Youth. Submitted.
37. Richard F. Betzel, Maxwell A. Bertolero, Evan M. Gordon, Caterina Gratton, Nico U.F. Dosenbach, and **Danielle S. Bassett**. The community structure of functional brain networks exhibits scale-specific patterns of variability across individuals and time. Submitted.
36. Christopher W. Lynn and **Danielle S. Bassett**. The physics of brain network structure, function, and control. Nature Reviews Physics. Submitted.
35. Eli J. Cornblath, Arian Ashourvan, Jason Z. Kim, Richard F. Betzel, Rastko Ciric, Graham L. Baum, Kosha Ruparel, Tyler M. Moore, Ruben C. Gur, Raquel E. Gur, Russell T. Shinohara, David R. Roalf, Theodore D. Satterthwaite, **Danielle S. Bassett**. Context-dependent architecture of brain state dynamics is explained by white matter connectivity and theories of network control. Submitted.
34. Pranav G. Reddy, Richard F. Betzel, Ankit N. Khambhati, Preya Shah, Lohith Kini, Brian Litt, Timothy H. Lucas, Kathryn A. Davis, and **Danielle S. Bassett**. Genetic and neuroanatomical support for functional brain network dynamics in epilepsy. Submitted.
33. Preya Shah, Arian Ashourvan, Fadi Mikhail, Adam Pines, Lohith Kini, Russell T. Shinohara, **Danielle S. Bassett**, Kathryn A. Davis, Brian Litt. Local structural connectivity directs seizure spread in temporal lobe epilepsy. Submitted.
32. David Martin Lydon-Staley, Christine Kuehner, Vera Zamoscik, Silke Huffziger, Peter Kirsch, **Danielle S Bassett**. Functional Connectivity Among Default Mode, Fronto-Parietal, and Salience Networks Moderates the Lagged Association between Sadness and Rumination in Daily Life. Submitted.

31. Steven H. Tompson, Emily B. Falk, Matthew B. O'Donnell, Christopher N. Cascio, Joseph B. Bayer, Jean M. Vettel, **Danielle S. Bassett**. Response Inhibition in Adolescents is Moderated by Brain Connectivity and Social Network Structure. Submitted.
30. Teresa M. Karrer, **Danielle S. Bassett**, Birgit Derntl, Oliver Gruber, André Aleman, Renaud Jardri, Angela R. Laird, Peter T. Fox, Simon B. Eickhoff, Olivier Grisel, Gaël Varoquaux, Bertrand Thirion, Danilo Bzdok. Brain-based ranking of cognitive domains to predict schizophrenia. Submitted.
29. Sydney M. Shaffer, Benjamin L. Emert, Ann E. Sizemore, Rohit Gupte, Eduardo Torre, **Danielle S. Bassett**, Arjun Raj. Memory sequencing reveals heritable single cell gene expression programs associated with distinct cellular behaviors. Submitted.
28. Ursula A. Tooley, Allyson P. Mackey, Rastko Ciric, Kosha Ruparel, Tyler M. Moore, Ruben C. Gur, Raquel E. Gur, Theodore D. Satterthwaite, and **Danielle S. Bassett**. Influence of Neighborhood SES on Functional Brain Network Development. Submitted.
27. Zhixin Lu, **Danielle S. Bassett**. A Parsimonious Dynamical Model for Structural Learning in the Human Brain. Submitted.
26. Elisabeth A. Karuza, Ari E. Kahn, **Danielle S. Bassett**. Human sensitivity to community structure is robust to topological variation. Submitted.
25. Richard F. Betzel, Maxwell A. Bertolero, **Danielle S. Bassett**. Non-assortative community structure in resting and task-evoked functional brain networks. Submitted.
24. Tommaso Menara, Giacomo Baggio, **Danielle S. Bassett**, Fabio Pasqualetti. Stability of Cluster Synchronization in Networks of Kuramoto Oscillators. Submitted.
23. Eli J. Cornblath, David Lydon-Staley, **Danielle S. Bassett**. Neuropsychiatric care informed by networks and big data. Current Opinions in Neurobiology. Submitted.
22. Christopher W. Lynn, Ari E. Kahn, **Danielle S. Bassett**. Structure from noise: Mental errors yield abstract representations of events. Submitted.
21. Harvey Huang, Sunny Chen, Katelyn Titus, **Danielle S. Bassett**, Jennifer E. Phillips-Cremins. Genome folding is arranged as a core-periphery network within topologically associating domains. Submitted.
20. Evelyn Tang, Marcelo G. Mattar, Chad Giusti, Sharon L. Thompson-Schill, and **Danielle S. Bassett**. Effective learning is accompanied by high dimensional and efficient representations of neural activity. Submitted.
19. Jennifer Stiso, Ankit N. Khambhati, Tommaso Menara, Ari E. Kahn, Joel M. Stein, Sandhitsu R. Das, Richard Gorniak, Joseph Tracy, Brian Litt, Kathryn A. Davis, Fabio Pasqualetti, Timothy Lucas, & **Danielle S. Bassett**. White Matter Network Architecture Guides Direct Electrical Stimulation Through Optimal State Transitions. Submitted.
18. Titipat Achakulvisut, David Acuna, **Danielle S. Bassett**, Konrad Kording. Unique subfields of neuroscience exhibit more diverse language. Submitted.
17. Ankit N. Khambhati, Ari E Kahn, Julia Costantini, Youssef Ezzyat, Ethan A Solomon, Robert E Gross, Barbara C Jobst, Sameer A Sheth, Kareem A Zaghoul, Gregory Worrell, Sarah Seger, Bradley C Lega, Shennan Weiss, Michael R Sperling, Richard Gorniak, Sandhitsu R Das, Joel M Stein, Daniel S Rizzuto, Michael J Kahana, Timothy H Lucas, Kathryn A Davis, Joseph I Tracy, **Danielle S Bassett**. Predictive control of electrophysiological network architecture using direct, single-node neurostimulation in humans. Submitted.

16. Jason Z. Kim, Zhixin Lu, Steven H. Strogatz, **Danielle S. Bassett**. Conformational Control of Mechanical Networks. Submitted.
15. Sheila Shanmugan, Wen Cao, Theodore D. Satterthwaite, Mary D. Sammel, Arian Ashourvan, **Danielle S. Bassett**, Kosha Ruparel, Ruben C. Gur, C. Neill Epperson, James Loughhead. Impact of Childhood Adversity on Network Reconfiguration Dynamics During Working Memory. Submitted.
14. Jordan Dworkin, Russell T. Shinohara, **Danielle S. Bassett**. Networked proceedings of PNAS: The changing landscape of scientific research. Submitted.
13. Gaëlle E. Doucet, **Danielle S. Bassett**, David C. Glahn, Sophia Frangou. Heterogeneity in brain structure and functional connectivity in bipolar disorder is nested within normal variation. Submitted.
12. Danielle Rubin, **Danielle S. Bassett**, Robert Ready. Uncovering Dynamic Stock Return Correlations with Multilayer Network Analysis. Submitted.
11. Eli J. Cornblath, Evelyn Tang, Graham L. Baum, Tyler M. Moore, David R. Roalf, Ruben C. Gur, Raquel E. Gur, Fabio Pasqualetti, Theodore D. Satterthwaite, **Danielle S. Bassett**. Sex differences in network controllability as a predictor of executive function in youth. Submitted.
10. Boris C. Bernhardt, Min Liu, Reinder Vos de Wael, Jonathan Smallwood, Elisabeth Jefferies, Shi Gu, **Danielle S. Bassett**, Andrea Bernasconi, Neda Bernasconi. Hippocampal pathology modulates white matter connectome topology and controllability in temporal lobe epilepsy. Submitted.
9. Azeez Adebimpe, **Danielle S. Bassett**. Daniel Romer. Inter-subject synchronization of brain activity reveals acceptance of gun violence in movies in young adults. Submitted.
8. Christopher W. Lynn, Lia Papadopoulou, Daniel D. Lee, & **Danielle S. Bassett**. Surges of collective human activity emerge from simple pairwise interactions. Submitted.
7. Javier O. Garcia, Arian Ashourvan, Steven M. Thurman, **Danielle S. Bassett**, Jean M. Vettel. Reconfigurations within resonating clusters of brain networks following TMS reveal different scales of processing. Submitted.
6. Lorenzo Tiberi, Chiara Favaretto, Mario Innocenti, **Danielle S. Bassett**, and Fabio Pasqualetti. Synchronization Patterns in Networks of Kuramoto Oscillators: A Geometric Approach for Analysis and Control. Submitted.
5. Arian Ashourvan, Sérgio Pequito, Ankit N. Khambhati, Steven N. Baldassano, Kathryn A. Davis, Timothy Lucas, Jean M. Vettel, Brian Litt, George J. Pappas, **Danielle S. Bassett**. Parsing spatiotemporal dynamical stability in ECoG during seizure onset, propagation, and termination. Submitted.
4. Azeez Adebimpe, **Danielle S. Bassett**, Patrick E. Jamieson, Daniel Romer. The neural correlates of viewing movie gun violence in young adults. Submitted.
3. Richard F. Betzel, John D. Medaglia, Ari E. Kahn, Jonathan Soffer, Daniel R. Schonhaut, **Danielle S. Bassett**. Inter-regional ECoG correlations predicted by communication dynamics, geometry, and correlated gene expression. Submitted.
2. Arian Ashourvan, Qawi K. Telesford, Timothy Verstynen, Jean M. Vettel, **Danielle S. Bassett**. Multi-scale detection of hierarchical community architecture in structural and functional brain networks. Submitted.

1. Andrew C. Murphy, Shi Gu, Ankit N. Khambhati, Nicholas F. Wymbs, Scott T. Grafton, Theodore D. Satterthwaite, **Danielle S. Bassett**. Explicitly linking regional activation and function connectivity: Community structure of weighted networks with continuous annotation. Submitted.

*Accepted and/or Published: (207)*

## 2018

**2018.78** David Lydon-Staley, Robert Schnoll, Brian L Hitsman, **Danielle S. Bassett**. The Network Structure of Tobacco Withdrawal in a Community Sample of Smokers Treated with Nicotine Patch and Behavioral Counseling. *Nicotine and Tobacco Research*. In Press.

**2018.77** Gaelle E. Doucet, Dominik A. Moser, Amanda Rodrigue, **Danielle S. Bassett**, David C. Glahn, Sophia Frangou. Person-based brain morphometric similarity is heritable and correlates with biological features. *Cerebral Cortex*. In Press.

**2018.76** Tommaso Menara, **Danielle S. Bassett**, and Fabio Pasqualetti. Structural Controllability of Symmetric Networks. *IEEE Transactions on Automatic Control (TAC)*. Accepted.

**2018.75** Vivek P. Buch, Andrew G. Richardson, Cameron Brandon, Jennifer Stiso, Monica N. Khattak, **Danielle S. Bassett**, Timothy H. Lucas. Network brain-computer interface (nBCI): An alternative approach for cognitive prosthetics. *Frontiers in Neuroscience*, 2018. In Press.

**2018.74** Fabrizio De Vico Fallani, **Danielle S Bassett**. Network neuroscience for optimizing brain-computer interfaces. *Physics of Life*. In Press.

**2018.73** Ann E. Sizemore, Jennifer Philips-Cremens, Robert Ghrist, **Danielle S. Bassett**. The importance of the whole: topological data analysis for the network neuroscientist. *Network Neuroscience*. In Press.

**2018.72** **Danielle S. Bassett** & Fabio Pasqualetti. Network-based approaches for understanding intrinsic control capacities of the human brain. Invited for inclusion as a chapter in *The Cognitive Neurosciences IV* from MIT Press, Edited by Poeppel, Mangun & Gazzaniga.

**2018.71** Jennifer Stiso, **Danielle S. Bassett**. Spatial Embedding Imposes Constraints on the Network Architectures of Neural Systems. *Trends in Cognitive Science*, Accepted.

**2018.70** David Lydon-Staley, Rastko Ciric, Theodore D. Satterthwaite, **Danielle S. Bassett**. Evaluation of confound regression strategies for the mitigation of motion artifact in studies of dynamic resting state functional connectivity. *Network Neuroscience*, Accepted.

**2018.69** Kanika Basal, John D. Medaglia, **Danielle S. Bassett**, Jean M. Vettel, Sarah F. Muldoon. Data-driven brain network models predict individual variability in behavior. *PLoS Comp Biol*. In Press.

**2018.68** Steven H. Thompson, Emily B. Falk, **Danielle S. Bassett**, Jean M. Vettel. Using neuroimaging to predict behavior: An overview with a focus on the moderating role of sociocultural context. To appear in *Social-Behavioral Modeling for Complex Systems*. Wiley & Sons.

**2018. 67** **Danielle S. Bassett**, Jennifer Stiso. Spatial Brain Networks. To appear in "Spatial Networks", *Comptes-rendus Academie des sciences*. Editor: Marc Barthelemy.

**2018.66** Jordan Dworkin, Russell T. Shinohara, **Danielle S. Bassett**. The landscape of *NeuroImage*-ing research. *NeuroImage*. In Press.

**2018.65** Rastko Ciric, Adon FG Rosen, Guray Erus , Philip A Cook, **Danielle S Bassett**, Christos Davatzikos, Daniel H Wolf, Theodore D Satterthwaite. Mitigating head motion artefact in functional connectivity MRI. *Nature Protocols*, In Press.

**2018.64** Ari E. Kahn, Elisabeth A. Karuza, Jean M. Vettel, **Danielle S. Bassett**. Network constraints on learnability of probabilistic motor sequences. *Nature Human Behavior*, In Press.

**2018.63** Doré, B.P., Scholz, C., Baek, E.C., Garcia, J.O., O'Donnell, M.B., **Bassett, D.S.**, Vettel, J.M., Falk, E.B. Brain Activity Tracks Population Information Sharing by Capturing Consensus Judgments of Value. *Cerebral Cortex*. Epub Ahead of Print.

**2018.62** Lia Papadopoulos, Pablo Blinder, Henrik Ronellenfisch, Florian Klimm, Eleni Katifori, David Kleinfeld, **Danielle S. Bassett**. Comparing two classes of biological distribution systems using network analysis. *PLS Computational Biology*. In Press.

**2018.61** Cassiano O. Becker, **Danielle S. Bassett**, and Victor M. Preciado. Large-scale dynamic modeling of task-fMRI signals via subspace system identification. *Journal of Neural Engineering*, Accepted.

**2018.60** David Lydon-Staley & **Danielle S. Bassett**. The Promise and Challenges of Intensive Repeated Measures for Cognitive Neuroscience Models of Adolescent Substance Use. *Frontiers in Psychology*. Accepted.

**2018.59** Maxwell A. Bertolero, B. T. T. Yeo, **Danielle S. Bassett**, Mark D'Esposito, A mechanistic model of connector hubs, modularity, and cognition. *Nature Human Behavior*. Accepted.

**2018.58** Steven H. Tompson, Emily B. Falk, **Danielle S. Bassett**, Jean M. Vettel. Using neuroimaging to predict behavior: An overview with a focus on the moderating role of sociocultural context. To be included in *Social-Behavioral Modeling for Complex Systems*, Wiley & Sons.

**2018.57** **Danielle S. Bassett**, Perry Zurn, Joshua I. Gold. The nature of network models in neuroscience. To appear in *Cerebral Cortex* 3.0, MIT Press (2018).

**2018.56** David A. Leopold, Peter L. Strick, **Danielle S. Bassett**, Randy M. Bruno, Hermann Cuntz, Kristen M. Harris, Marcel Oberlaender, and Marcus E. Raichle. Functional Architecture of the Cerebral Cortex. To appear in *Cerebral Cortex* 3.0, MIT Press (2018).

**2018.55** Ann E. Sizemore, Elisabeth A. Karuza, Chad Giusti, **Danielle S. Bassett**. Knowledge gaps in the early growth of semantic networks. *Nature Human Behavior*. In Press.

**2018.54** Maxwell A. Bertolero, **Danielle S. Bassett**. The Networks Inside Your Brain. *Scientific American*, 2018, In Press.

**2018.53** Olaf Sporns & **Danielle S. Bassett**. Editorial: New Trends in Connectomics. *Network Neuroscience*, 2018, 2(2):125-127.

**2018.52** Zhen Yang, Shi Gu, Nicolas Honnorat, Kristin Linn, Russell T. Shinohara, Irem Aselcioglu, Steven Bruce, Desmond J. Oathes, Theodore D. Satterthwaite, **Danielle S. Bassett**, Yvette I. Sheline. Network Changes Predict Transdiagnostic Depressive Symptom Improvement Following Cognitive Behavioral Therapy in MDD and PTSD. *Molecular Psychiatry*. In Press.

**2018.51** Cedric Huchuan Xia, Zongming Ma, Rastko Ciric, Shi Gu, Richard F. Betzel, Antonia N. Kaczkurkin, Monica E. Calkins, Philip A. Cook, Angel Garcia de la Garza, Simon Vandekar, Tyler M. Moore, David R. Roalf, Kosha Ruparel, Daniel H. Wolf, Christos Davatzikos, Ruben C. Gur, Raquel E. Gur, Russell T. Shinohara, **Danielle S. Bassett**, & Theodore D. Satterthwaite. Linked dimensions of psychopathology and connectivity in functional brain networks. *Nature Communications*. In Press.

**2018.50** Ankit Khambhati, John D. Medaglia, Elizabeth Karuza, Sharon Thompson-Schill, **Danielle S. Bassett**. Subgraphs of functional brain networks identify dynamical constraints of cognitive control. *PLoS Computational Biology*. In Press.

**2018.49** Aaron F Alexander-Bloch, **Danielle S Bassett**, David A Ross. Missed connections: a network approach to understanding psychiatric illness. *Biologica Psychiatry*. In Press.

**2018.48** Tiziana Cattai, Stefania Colonnese, Marie-Constance Corsi, **Danielle S. Bassett**, Gaetano Scarano, Fabrizio De Vico Fallani Node connectivity between brain signals discriminates mental states. *European Signal Processing Conference (EUSIPCO 2018)*. In Press.

**2018.47** Evelyn Tang, **Danielle S. Bassett**. Control of dynamics in brain networks. *Reviews of Modern Physics*. In Press.

**2018.46** Julius Kernbach, Ted Satterthwaite, **Danielle S. Bassett**, Jonathan Smallwood, Daniel Margulies, Sarah Krall, Gaël Varoquaux, Bertrand Thirion, Kerstin Konrad, Danilo Bzdok. Shared Endophenotypes of Default Mode Dysfunction in Attention Deficit/Hyperactivity Disorder and Autism Spectrum Disorder. *Translational Psychiatry*. In Press.

**2018.45** John D. Medaglia, Denise Y. Harvey, Nicole White, **Danielle S. Bassett**, Roy H. Hamilton. Network Controllability in the Inferior Frontal Gyrus Relates to Controlled Language Variability and Susceptibility to TMS. *J Neurosci*. In Press.

**2018.44** **Danielle S. Bassett**, Perry Zurn, Joshua I. Gold. On the nature and use of models in network neuroscience. Invited at *Nature Reviews Neuroscience*. In Press.

**2018.43** Theodore D. Satterthwaite, Cedric Xia, **Danielle S. Bassett**. Personalized Neuroscience: Common and Individual-Specific Features in Functional Brain Networks. *Neuron* (2018) 98(2): 243–245.

**2018.42** Richard F. Betzel, **Danielle S. Bassett**. The specificity and robustness of long-distance connections in weighted, interareal connectomes. *Proceedings of the National Academy of Sciences*. In Press.

**2018.41** Brian Silston, **Danielle S. Bassett**, Dean Mobbs. How dynamic brain networks tune social behavior in real-time. *Current Directions in Psychological Science*. In Press.

**2018.40** John D. Medaglia and **Danielle S. Bassett**. Network Analyses and Nervous System Disorders. *Oxford Research Encyclopedia of Neuroscience*. In Press.

**2018.39** **Danielle S. Bassett**, Cedric Xia, Theodore D. Satterthwaite. Understanding the Emergence of Neuropsychiatric Disorders with Network Neuroscience. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*. In Press.

**2018.38** Chiara Favaretto, **Danielle S. Bassett**, Angelo Cenedese, and Fabio Pasqualetti. Bode meets Kuramoto: Synchronized Clusters in Oscillatory Networks. *American Controls Conference*. 17009607.

**2018.37** Jayson Jeganathan, Alistair Perry, **Danielle S. Bassett**, Gloria Roberts, Philip B. Mitchell, Michael Breakspear. Fronto-limbic dysconnectivity leads to impaired brain network controllability in young people with bipolar disorder and those at high genetic risk. *NeuroImage Clinical*. In Press.

**2018.36** David Lydon-Staley & **Danielle S. Bassett**. Network neuroscience: A framework for developing biomarkers in psychiatry. To be published by Springer in the volume 'Biomarkers in Psychiatry' for the *Current Topics in Behavioral Neurosciences* series.

**2018.35** Marie-Constance Corsi, Mario Chavez, Denis Schwarz, Laurent Hugueville, Ankit N. Khambati, **Danielle S. Bassett**, Fabrizio de vico Fallani. Integrating EEG and MEG signals to improve motor imagery classification in brain-computer interfaces. *International Journal of Neural Systems*, In Press.

**2018.34** Sarah F. Muldoon, Julia Costantini, William Webber, Ronald Lesser, **Danielle S. Bassett**. Locally stable brain states predict suppression of epileptic activity by enhanced cognitive effort. *NeuroImage Clinical*. In Press.

**2018.33** Graham L. Baum, David R. Roalf, Philip A. Cook, Rastko Ciric, Adon Rosen, Cedric Xia, Mark A. Elliot, Kosha Ruparel, Ragini Verma, Birkan Tunc, Drew Parker, Ruben C. Gur, Raquel E. Gur, **Danielle S. Bassett**, Theodore D. Satterthwaite. The Impact of In-Scanner Head Motion on Structural Connectivity Derived from Diffusion Tensor Imaging. *NeuroImage*. In Press.

**2018.32** Thomas Naselaris, **Danielle S. Bassett**, Alyson K. Fletcher, Konrad Kording, Nikolaus Kriegeskorte, Hendrikje Nienborg, Russell A. Poldrack, Daphna Shohamy, Kendrick Kay. Cognitive Computational Neuroscience: A New Conference for an Emerging Discipline. *Trends in Cognitive Science*. In press.

**2018.31** Weiyu Huang, Thomas A.W. Bolton, John D. Medaglia, **Danielle S. Bassett**, Alejandro Ribeiro, Dimitri van de Ville. Graph Signal Processing of Human Brain Imaging Data. *IEEE International Conference on Acoustics, Speech, and Signal Processing*. Accepted.

**2018.30** Steve Tompson, Ari E. Kahn, Emily B. Falk, Jean M. Vettel, **Danielle S. Bassett**. Individual Differences in Learning Social and Non-Social Network Structures. *Journal of Experimental Psychology: Learning, Memory, and Cognition*. In Press.

**2018.29** Elena Wu-Yan, Richard F. Betzel, Evelyn Tang, Shi Gu, Fabio Pasqualetti, **Danielle S. Bassett**. Benchmarking measures of network controllability on canonical graph models. *Journal of Nonlinear Science*. In Press.

**2018.28** Lia Papadopoulos, Mason A. Porter, Karen E. Daniels, **Danielle S. Bassett**. Network Analysis of Particles and Grains. *Journal of Complex Networks*. In Press.

**2018.27** Raphael T. Gerraty, Juliet Y. Davidow, Karin Foerde, Adriana Galvan, **Danielle S. Bassett**, and Daphna Shohamy. Dynamic flexibility in striatal-cortical circuits supports reinforcement learning. *J Neurosci*. 2018 Feb 5. pii: 2084-17. doi: 10.1523/JNEUROSCI.2084-17.2018. [Epub ahead of print]

**2018.26** Tommaso Menara, Vaibhav Katewa, **Danielle S. Bassett**, and Fabio Pasqualetti. The Structured Controllability Radius of Symmetric (Brain) Networks. *IEEE American Control Conference*. 2018 In Press.

**2018.25** Marcelo Mattar, Nicholas F. Wymbs, Andrew Bock, Geoffrey Aguirre, Scott T. Grafton, **Danielle S. Bassett**. Predicting future learning from baseline network architecture. *NeuroImage*. 2018 Jan 28;172:107-117. doi: 10.1016/j.neuroimage.2018.01.037

**2018.24** Shi Gu, Matthew Cieslak, Benjamin Baird, Sarah F. Muldoon, Scott T. Grafton, Fabio Pasqualetti, **Danielle S. Bassett**. The Energy Landscape of Neurophysiological Activity Implicit in Brain Network Structure. *Scientific Reports*. 2018 Feb 6;8(1):2507. doi: 10.1038/s41598-018-20123-8.

**2018.23** Weiyu Huang, Thomas A. W. Bolton, John D. Medaglia, Sharon L. Thompson-Schill, **Danielle S. Bassett**, Alejandro Ribeiro, Dmitri van de Ville. A graph signal processing perspective on functional brain imaging. *Proceedings of the IEEE*. In Press.

**2018.22** Steve Tompson, Emily B. Falk, Jean M. Vettel, **Danielle S. Bassett**. Network Approaches to Understand Individual Differences in Brain Connectivity: Opportunities for Personality Neuroscience. *Personality Neuroscience*. In Press.

**2018.21** Xiaosong He, **Danielle S Bassett**, Chaitanya Ganne, Lauren Kozlowski, Michael R Sperling, and Joseph I Tracy. Altered dynamic network reconfiguration of the language system in temporal lobe epilepsy. *Brain*. In Press.

**2018.20** Perry Zurn, **Danielle S. Bassett**. On curiosity: a fundamental aspect of personality, a practice of network growth. *Personality Neuroscience*, In Press.

**2018.19** Pranav G. Reddy, Marcelo G. Mattar, Andrew C. Murphy, Nicholas F. Wymbs, Scott T. Grafton, Theodore D. Satterthwaite, **Danielle S. Bassett**. Brain State Flexibility Accompanies Motor-Skill Acquisition. *NeuroImage*, 2018 Jan 6;171:135-147. doi: 10.1016/j.neuroimage.2017.12.093.

**2018.18** Richard F. Betzel, John D. Medaglia, **Danielle S. Bassett**. Diversity of meso-scale architecture in human and non-human connectomes. *Nature Communications*. 2018 Jan 24;9(1):346. doi: 10.1038/s41467-017-02681-z.

**2018.17** Javi Garcia, Arian Ashourvan, Sarah F. Muldoon, Jean M. Vettel, **Danielle S. Bassett**. Applications of community detection techniques to brain graphs: Algorithmic considerations and implications for neural function. *Proceedings of the IEEE*. DOI: 10.1109/JPROC.2017.2786710

**2018.16** Andrew C. Murphy, Sarah F. Muldoon, David Baker, Adam Lastowka, Brittany Bennett, Muzhi Yang, **Danielle S. Bassett**. Structure, Function, and Control of the Human Musculoskeletal Network. *PLoS Biology*. 2018 Jan 18;16(1):e2002811. doi: 10.1371/journal.pbio.2002811.

**2018.15** Cassiano Becker, Sergio Pequito, George J. Pappas, Michael B. Miller, Scott T. Grafton, **Danielle S. Bassett**, Victor Preciado. Spectral mapping of brain functional connectivity from diffusion imaging. *Scientific Reports*. 2018 Jan 23;8(1):1411. doi: 10.1038/s41598-017-18769-x.

**2018.14** Ankit N. Khambhati, Marcelo G. Mattar, Nicholas F. Wymbs, Scott T. Grafton, **Danielle S. Bassett**. Beyond modularity: Fine-scale mechanisms and rules for brain network reconfiguration. *NeuroImage*. 2018 Feb 1;166:385-399. doi: 10.1016/j.neuroimage.2017.11.015.

**2018.13** Preya Shah, **Danielle S. Bassett**, Laura E.M. Wisse, John A. Detre, Joel M. Stein, Paul A. Yushkevich, Russell T. Shinohara, John B. Pluta, Molly Daffner, David A. Wolk, Mark A. Elliott, Brian Litt, Kathryn A. Davis, Sandhitsu R. Das. Mapping the structural and functional network architecture of the medial temporal lobe using 7T MRI. *Human Brain Mapping*. 2018 Feb;39(2):851-865. doi: 10.1002/hbm.23887.

**2018.12** Richard F. Betzel & **Danielle S. Bassett**. Generative models for network neuroscience: Prospects and promise. *Journal of Royal Society Interface*. *J R Soc Interface*. 2017 Nov;14(136).

**2018.11** Urs Braun, Axel Schaefer, Richard F. Betzel, Heike Tost, Andreas Meyer-Lindenberg, **Danielle S. Bassett**. From maps to multi-dimensional network mechanisms of mental disorders. *Neuron*. 2018 Jan 3;97(1):14-31. doi: 10.1016/j.neuron.2017.11.007.

**2018.10** Ann Sizemore, Chad Giusti, Ari E. Kahn, Jean M. Vettel, Richard F. Betzel, **Danielle S. Bassett**. Cliques and cavities in the human connectome. *Journal of Computational Neuroscience*. 2018 Feb;44(1):115-145. doi: 10.1007/s10827-017-0672-6.

**2018.9** John D. Medaglia, Theodore D. Satterthwaite, Apoorva Kelkar, Rastko Ciric, Tyler M. Moore, Kosha Ruparel, Ruben C. Gur, Raquel E. Gur, **Danielle S. Bassett**. Flexible Traversal Through Diverse

Brain States Underlies Executive Function in Normative Neurodevelopment. *NeuroImage*. 2018 Feb 1;166:293-306.

**2018.8** Jérémy Lefort-Besnard, **Danielle S. Bassett**, Jonathan Smallwood, Daniel Margulies, Brigit Dernt, Oliver Gruber, Andre Aleman, Renaud Jardri, Gaël Varoquaux, Bertrand Thirion, Simon B. Eickhoff, Danilo Bzdok. Different shades of default mode disturbance in schizophrenia: Subnodal covariance estimation in structure and function. *Human Brain Mapping*. 2018 Feb;39(2):644-661. doi: 10.1002/hbm.23870.

**2018.7** Heidi K. Norton, Harvey Huang, Daniel J. Emerson, Jesi Kim, Shi Gu, **Danielle S. Bassett**, Jennifer E. Phillips-Cremins. Detecting hierarchical genome folding with network modularity. *Nature Methods*. 2018 Feb;15(2):119-122. doi: 10.1038/nmeth.4560

**2018.6** John D. Medaglia, Weiyu Huang, Elisabeth A. Karuza, Sharon L. Thompson-Schill, Alejandro Ribeiro, and **Danielle S. Bassett**. Functional Alignment with Anatomical Networks is Associated with Cognitive Flexibility. *Nature Human Behavior*. 2, pages156–164 (2018). doi:10.1038/s41562-017-0260-9

**2018.5** Jason Kim, Jonathan M. Soffer, Ari E. Kahn, Jean M. Vettel, Fabio Pasqualetti, **Danielle S. Bassett**. Role of Graph Architecture in Controlling Dynamical Networks with Applications to Neural Systems. *Nature Physics*. 14, pages 91–98 (2018) doi:10.1038/nphys4268

**2018.4** Ann Sizemore and **Danielle S. Bassett**. Dynamic graph metrics: Toolbox, Tutorial, and Tale. *Neuroimage*. 2017, 2017 Jul 8. pii: S1053-8119(17)30564-5.

**2018.3** Ankit Khambhati, Ann E. Sizemore, Richard F. Betzel, and **Danielle S. Bassett**. Modeling and Interpreting Mesoscale Network Dynamics. *Neuroimage*. 2017. Jun 20. pii: S1053-8119(17)30500-1.

**2018.2** Marcelo G. Mattar, Sharon L. Thompson-Schill, **Danielle S. Bassett**. The network architecture of value learning. *Network Neuroscience*. In Press. [https://doi.org/10.1162/NETN\\_a\\_00021](https://doi.org/10.1162/NETN_a_00021)

**2018.1** Theodore D. Satterthwaite, Rastko Ciric, David R. Roalf, Christos Davatzikos, **Danielle S. Bassett**, & Daniel H. Wolf. Motion Artifact in Studies of Functional Connectivity: Characteristics and Mitigation Strategies. *Human Brain Mapping*. 2017 Nov 1. doi: 10.1002/hbm.23665. [Epub ahead of print]

## 2017

**2017.39** Nicole Cooper, Steven Tompson, Matthew B. O'Donnell, Jean M. Vettel, **Danielle S. Bassett**, Emily B. Falk. Associations between coherent neural activity in the brain's value system during antismoking messages and reductions in smoking. *Health Psychology*. 2018 Feb 15. doi: 10.1037/hea0000574. [Epub ahead of print]

**2017.38** Elisabeth A. Karuza, Ari E. Kahn, Sharon L. Thompson-Schill, & **Danielle S. Bassett**. Process reveals structure: How a network is traversed mediates expectations about its architecture. *Scientific Reports*. 2017 Oct 6;7(1):12733.

**2017.37** Evelyn Tang, Chad Giusti, Graham Baum, Shi Gu, Eli Pollock, Ari E. Kahn, David Roalf, Tyler M. Moore, Kosha Ruparel, Ruben C. Gur, Raquel E. Gur, Theodore D. Satterthwaite, and **Danielle S. Bassett**. Developmental increases in white matter network controllability support a growing diversity of brain dynamics. *Nature Communications*. 2017 Nov 1;8(1):1252.

**2017.36** Petko Bogdanov, Nazli Dereli, **Danielle S. Bassett**, Scott T. Grafton, Ambuj K. Singh. Learning about Learning: Human Brain Sub-Network Biomarkers in fMRI Data. Submitted. *PLoS One*, 2017 Oct 10;12(10):e0184344.

- 2017.35** Lorenzo Tiberi, Chiara Favaretto, Mario Innocenti, **Danielle S. Bassett**, and Fabio Pasqualetti. Cluster Synchronization in Networks of Kuramoto Oscillators: A Geometric Approach for Analysis and Control. Accepted to IEEE Conference on Decision and Control.
- 2017.34** Lia Papadopoulos, Jason Kim, Jurgen Kurths, **Danielle S. Bassett**. Development of structural correlations and synchronization from adaptive rewiring in networks of Kuramoto oscillators. *Chaos*. 2017 Jul;27(7):073115.
- 2017.33** Benjamin E. Yerys, John D. Herrington, Theodore D. Satterthwaite, Lisa Guy, Robert T. Schultz, **Danielle S. Bassett**. Globally weaker and topologically different: Resting state networks in youth with autism. *Molecular Autism*. 2017 Jul 26;8:39.
- 2017.32** Emily B. Falk and **Danielle S. Bassett**. Brain and Social Networks: fundamental building blocks of human experience. *Trends in Cognitive Science*. 2017. 2017 Sep;21(9):674-690.
- 2017.31** **Danielle S. Bassett**. A network science of the practice of curiosity. To appear in the collected volume "*Curiosity Studies: Toward a New Ecology of Knowledge*" edited by Perry Zurn & Arjun Shankar.
- 2017.30** Qawi K. Telesford, Arian Ashourvan, Nicholas F. Wymbs, Scott T. Grafton, Jean M. Vettel, **Danielle S. Bassett**. Cohesive Network Reconfiguration Accompanies Extended Training. *Human Brain Mapping*. 2017 Sep;38(9):4744-4759.
- 2017.29** Arian Ashourvan, Shi Gu, Marcelo G. Mattar, Jean M. Vettel and **Danielle S. Bassett**. The Energy Landscape Underpinning Module Dynamics in the Human Brain Connectome. *NeuroImage*. 2017 Aug 15;157:364-380.
- 2017.28** Gaëlle E. Doucet, **Danielle S. Bassett**, Nailin Yao, David C. Glahn, Sophia Frangou. Default mode network integration associated with disease expression and resilience to bipolar disorder. *American Journal of Psychiatry*. 2017 Dec 1;174(12):1214-1222.
- 2017.27** Brent G. Nelson, **Danielle S. Bassett**, Jazmin Camchong, Edward T. Bullmore, Kelvin O. Lim. Comparison of Large-Scale Human Brain Functional and Anatomical Networks in Schizophrenia. *Neuroimage Clinical*. 2017 May 14;15:439-448.
- 2017.26** John D. Medaglia, Perry A. Zurn, Walter Sinnott-Armstrong, **Danielle S. Bassett**. Mind Control: Frontiers in Guiding the Mind. *Nature Human Behavior*. 2017, 1:0119 (2017).
- 2017.25** Shi Gu, Muzhi Yang, John D. Medaglia, Ruben C. Gur, Raquel E. Gur, Theodore D. Satterthwaite, **Danielle S. Bassett**. Functional Hypergraph Uncovers Novel Covariant Structures over Neurodevelopment. *Human Brain Mapping*. 2017 Aug;38(8):3823-3835.
- 2017.24** Graham L. Baum, Rastko Ciric, David R. Roalf, Richard F. Betzel, Tyler M. Moore, Russell T. Shinohara, Ari E. Kahn, Megan Quarmley, Philip A. Cook, Mark A. Elliott, Kosha Ruparel, Raquel E. Gur, Ruben C. Gur, **Danielle S. Bassett**, & Theodore D. Satterthwaite. Modular Segregation of Structural Brain Networks Supports the Development of Executive Function in Youth. *Current Biology*. Volume 27, Issue 11, p1561–1572.e8, 5 June 2017.
- 2017.23** Ralf Schmälzle, Matthew Brook O'Donnell, Javier O. Garcia, Chris Cascio, Joseph Bayer, **Danielle S. Bassett**, Jean Vettel, & Emily Falk. Brain connectivity dynamics during social interaction reflect social network structure. *PNAS*. 2017 May 16;114(20):5153-5158.
- 2017.22** Rastko Ciric, Daniel H. Wolf, Jonathan D. Power, David R. Roalf, Graham Baum, Kosha Ruparel, Russell T. Shinohara, Mark E. Elliott, Simon B. Eickhoff, Christos Davatzikos, Ruben C. Gur, Raquel E.

Gur, **Danielle S. Bassett**, Theodore D. Satterthwaite. Benchmarking confound regression strategies for the control of motion artifact in studies of functional connectivity. *NeuroImage*, 2017 Mar 14. pii: S1053-8119(17)30228-8.

**2017.21** Andrew Murphy & **Danielle S. Bassett**. A Network Neuroscience of Neurofeedback for Clinical Translation. *Current Opinions in Biomedical Engineering*. 2017. *Current Opinions in Biomedical Engineering*. 2017 Mar;1:63-70.

**2017.20** John D. Medaglia, Weiyu Huang, Santiago Segarra, Christopher Olm, James Gee, Murray Grossman, Alejandro Ribeiro, Corey T McMillan, **Danielle S. Bassett**. Brain network efficiency is influenced by pathological source of corticobasal syndrome. *Neurology*. 2017 Sep 26;89(13):1373-1381.

**2017.19** **Danielle S. Bassett** & Ankit N. Khambhati. A network engineering perspective on probing and perturbing cognition with neurofeedback. *For The Year of Cognition, Ann N Y Acad Sci.* 2017, 1396(1):126-143.

**2017.18** Richard Betzel, Theodore D. Satterthwaite, Joshua I. Gold, **Danielle S. Bassett**. Positive affect, surprise, and fatigue are correlates of network flexibility. *Scientific Reports*. 2017 Mar 31;7(1):520.

**2017.17** Laura Wiles, Shi Gu, Fabio Pasqualetti, **Danielle S. Bassett**, David F. Meaney. Autaptic Connections Shift Network Excitability and Bursting. *Scientific Reports*, 2017 Mar 7;7:44006.

**2017.16** Sergio Pequito, Arian Ashourvan, **Danielle S. Bassett**, Brian Litt, George J. Pappas. Spectral Control of Cortical Activity. *American Controls Conference*. In *Proceedings of the American Control Conference*, Seattle, WA, May 2017.

**2017.15** Nicole Cooper, **Danielle S. Bassett**, Emily Falk. Functional connectivity between valuation brain regions during health messages predicts behavior change. *Scientific Reports* 2017 Feb 27;7:43250.

**2017.14** **Danielle S. Bassett** & Marcelo G. Mattar. A Network Neuroscience of Human Learning. *TICS*, 2017 Apr;21(4):250-264.

**2017.13** John D. Medaglia, Fabio Pasqualetti, Roy Hamilton, Sharon Thompson-Schill & **Danielle S. Bassett**. The Utility of Dynamic Network Theory in Understanding Brain and Cognitive Reserve. *Neuroscience and Biobehavioral Reviews*. 2017 Apr;75:53-64.

**2017.12** Marcelo G. Mattar & **Danielle S. Bassett**. Brain Network Architecture: Implications for Human Learning. To appear in the volume *Network Science in Cognitive Psychology* (Routledge).

**2017.11** **Danielle S. Bassett** & Olaf Sporns. Network Neuroscience. *Nature Neuroscience*. *Nature Neuroscience*. 2017 Feb 23;20(3):353-364.

**2017.10** Ankit N. Khambhati, **Danielle S. Bassett**, Brian S. Oommen, Stephanie H. Chen, Kathryn A. Davis, and Brian Litt. Recurring functional architecture predicts dynamic network interactions during ictal and interictal states in human neocortical epilepsy. *ENeuro*. 2017 Mar 8;4(1). pii: ENEURO.0091-16.2017.

**2017.9** Shi Gu, Richard F. Betzel, Matthew Cieslak, Philip Delio, Scott T. Grafton, Fabio Pasqualetti, **Danielle S. Bassett**. Optimal Trajectories of Brain State Transitions. *Neuroimage*. 2017 Mar 1;148:305-317.

**2017.8** Nicole Cooper, Steven Tompson, Matthew B. O'Donnell, Jean M. Vettel, **Danielle S. Bassett**, Emily B. Falk. Coherent neural activity in the brain's value system during antismoking messages predicts reductions in smoking. Accepted to *International Communication Association*.

**2017.7** Leah Goldsberry, Weiyu Huang, Nicholas F. Wymbs, Scott T. Grafton, **Danielle S. Bassett**, Alejandro Ribeiro. Brain signal analytics from graph signal processing perspective. Accepted to ICASSP 2017.

**2017.6** **Danielle S. Bassett**, Ankit N. Khambhati, Scott T. Grafton. Emerging Frontiers of Neuroengineering: A Network Science of Brain Connectivity. 2016. Annual Review of Biomedical Engineering. 2017 Jun 21;19:327-352

**2017.5** Richard F. Betzel, John D. Medaglia, Lia Papadopoulos, Graham Baum, Ruben Gur, Raquel Gur, David Roalf, Theodore D. Satterthwaite, **Danielle S. Bassett**. The modular organization of human anatomical brain networks: Accounting for the cost of wiring. *Network Neuroscience*. 1(1), 42–68. doi:10.1162/netn\_a\_00002.

**2017.4** Anup Sharma, Daniel H. Wolf, Rastko Ciric, Joseph W. Kable, Tyler M. Moore, Simon N. Vandekar, Natalie Katchmar, Aylin Daldal, Kosha Ruparel, Christos Davatzikos, Mark A. Elliott, Monica E. Calkins, Russell T. Shinohara, **Danielle S. Bassett**, and Theodore D. Satterthwaite. Connectome-Wide Analysis Reveals Common Dimensional Reward Deficits Across Mood and Psychotic Disorders. *American Journal of Psychiatry*. American Journal of Psychiatry. 2017 Jul 1;174(7):657-666.

**2017.3** Lucy Chai, Ankit Khambhati, Rastko Ciric, Tyler Moore, Ruben Gur, Raquel Gur, Theodore D. Satterthwaite, **Danielle S. Bassett**. Evolution of brain network dynamics in neurodevelopment. *Network Neuroscience*. *Network Neuroscience*, 1(1) 14-30, 2017.

**2017.2** Ari E. Kahn, Marcelo G. Mattar, Jean M. Vettel, Nicholas F. Wymbs, Scott T. Grafton, **Danielle S. Bassett**. Structural Pathways Supporting Swift Acquisition of New Visuo-Motor Skills. *Cerebral Cortex*. 2017 Jan 1;27(1):173-184.

**2017.1** Richard F. Betzel & **Danielle S. Bassett**. Multi-scale brain networks. *Neuroimage*. 2017 Oct 15;160:73-83.

## 2016

**2016.26** Cassiano O. Becker, Ankit N. Khambhati, **Danielle S. Bassett**, Victor M. Preciado. Identification of networks of Wilson-Cowan neuronal oscillators by inverse sigmoidal transformation. *IEEE Signal Processing in Medicine and Biology Symposium*. 2016.

**2016.25** Urs Braun, Axel Schäfer, **Danielle S. Bassett**, Franziska Rausch, Janina Schweiger, Edda Bilek, Susanne Erk, Nina Romanczuk-Seiferth, Oliver Grimm, Leila Haddad, Kristina Otto, Sebastian Mohnke, Andreas Heinz, Mathias Zink, Henrik Walter, Andreas Meyer-Lindenberg, Heike Tost. Dynamic reconfiguration of brain networks: a potential schizophrenia genetic risk mechanism modulated by NMDA receptor function. *Proc Natl Acad Sci U S A*. 2016 Nov 1;113(44):12568-12573.

**2016.24** Elizabeth N. Davison, Benjamin O. Turner, Kimberly J. Schlesinger, Michael B. Miller, Scott T. Grafton, **Danielle S. Bassett**, Jean M. Carlson. Individual differences in dynamic functional brain connectivity across the human lifespan. *PLoS Comp Biol*. 2016 Nov 23;12(11):e1005178.

**2016.23** Chad Giusti, Lia Papadopoulos, Eli T. Owens, Karen E. Daniels, **Danielle S. Bassett**. Topological and geometric measurements of force chain structure. *Phys Rev E*. 2016 Sep;94(3-1):032909.

**2016.22** Lia Papadopoulos, James Puckett, Karen E. Daniels, **Danielle S. Bassett**. Evolution of network architecture in a granular material under compression. *Phys Rev E*. 2016 Sep;94(3-1):032908.

**2016.21** Michael W. Cole, **Danielle S. Bassett**, Doug Schultz. Brain activations are shaped by activity flow through both intrinsic and task-evoked functional networks. *Nature Neuroscience*. *Nat Neurosci*. 2016 Dec;19(12):1718-1726.

**2016.20** **Danielle S. Bassett** & Edward T. Bullmore. Small-world brain networks revisited. *Neuroscientist*. 2016 Sep 21. pii: 1073858416667720. [Epub ahead of print].

**2016.19** Weiyu Huang, Leah Goldsberry, Nicholas F. Wymbs, Scott T. Grafton, **Danielle S. Bassett** and Alejandro Ribeiro. Graph Frequency Analysis of Brain Signals. *IEEE J Sel Top Signal Process*. 2016 Oct;10(7):1189-1203.

**2016.18** Sarah Feldt Muldoon, Fabio Pasqualetti, Shi Gu, Matthew Cieslak, Scott T. Grafton, Jean M. Vettel, Danielle S. Bassett. Stimulation-based control of dynamic brain networks. *PLoS Comp Biol*. 2016 Sep 9;12(9):e1005076.

**2016.17** Ankit Khambhati, Kathryn Davis, Timothy Lucas, Brian Litt, **Danielle S. Bassett**. Virtual cortical resection reveals push-pull network control preceding seizure evolution. *Neuron*. 2016 Sep 7;91(5):1170-82.

**2016.16** Fabian Soto, **Danielle S. Bassett**, F. Gregory Ashby. Dissociable changes in functional network topology underlie early category learning and development of automaticity. *Neuroimage*. 2016 Nov 1;141:220-41.

**2016.15** Lucy Chai, Marcelo Mattar, Idan Asher Blank, Evelina Fedorenko, **Danielle S. Bassett**. Functional Network Dynamics of the Language System. *Cereb Cortex*. 2016, 26(11):4148-4159.

**2016.14** Richard F. Betzel, Shi Gu, John D. Medaglia, Fabio Pasqualetti, **Danielle S. Bassett**. Optimally controlling the human connectome: the role of network topology. *Sci Rep*. 2016 Jul 29;6:30770.

**2016.13** Ankit Khambhati and **Danielle S. Bassett**. A powerful DREADD: Revealing structural drivers of functional dynamics. *Neuron*. 2016 Jul 20;91(2):213-5.

**2016.12** Marcelo Mattar, Richard Betzel, **Danielle S. Bassett**. A flexible brain. *Brain*. 2016 Aug;139(Pt 8):2110-2.

**2016.11** Elizabeth Karuza, Sharon Thompson-Schill, **Danielle S. Bassett**. Local patterns to global architectures: Influences of network topology on human learning. *Trends in Cognitive Science*. *Trends Cogn Sci*. 2016 Aug;20(8):629-40.

**2016.10** Qawi Telesford, Mary-Ellen Lynall, Jean Vettel, Michael Miller, Scott Grafton, **Danielle S. Bassett**. Node dynamics in time-dependent brain networks: An analysis of network dynamics and task-driven cognitive states. *Neuroimage*. 2016 May 31. pii: S1053-8119(16)30198-7.

**2016.9** Zitong Zhang, Qawi K. Telesford, Chad Giusti, Kelvin O. Lim, **Danielle S. Bassett**. Choosing Wavelet Methods, Filters, and Lengths for Functional Brain Network Construction. *PLoS One*. 2016 Jun 29;11(6):e0157243.

**2016.8** Chad Giusti, Robert Ghrist, **Danielle S. Bassett**. Two's company, three (or more) is a simplex: Algebraic-topological tools for understanding higher-order structure in neural data. *J Comput Neurosci*. 2016 Aug;41(1):1-14.

**2016.7** Steven Baldassano, **Danielle S. Bassett**. Topological distortion and reorganized modular structure of gut microbial co-occurrence networks in inflammatory bowel disease. *Sci Rep*. 2016 May 18;6:26087.

**2016.6** Ann Sizemore, Chad Giusti, **Danielle S. Bassett**. Classification of weighted networks through mesoscale homological features. *Journal of Complex Networks*. (2016) doi: 10.1093/comnet/cnw013

**2016.5** Megan Sperry, Qawi Telesford, Florian Klimm, **Danielle S. Bassett**. Rentian scaling for the measurement of optimal embedding of complex networks into physical space. *Journal of Complex Networks*. (2016) doi: 10.1093/comnet/cnw010

**2016.4** Sarah Feldt Muldoon, Eric W. Bridgeford, **Danielle S. Bassett**. Small-world propensity in real-world weighted networks. *Scientific Reports*. 2016 Feb 25;6:22057.

**2016.3** Sergio Pequito, Ankit N. Khambhati, George J. Pappas, Dragoslav D. Siljak, **Danielle S. Bassett**, and Brian Litt. Structural Analysis and Design of Dynamic-Flow Networks: Implications into the Brain Dynamics. In the Proceedings of the 2016 American Control Conference, Boston.

**2016.2** Sijia Zhang, **Danielle S. Bassett**, Beth Winkelstein. Stretch-induced network reconfiguration of collagen fibers in the human facet capsular ligament. *Journal of the Royal Society Interface*. 2016 Jan;13(114):20150883.

**2016.1** Sarah Feldt Muldoon & **Danielle S. Bassett**. Network and multilayer network approaches to understanding human brain dynamics. *Philosophy of Science*. Epub Ahead of Print. DOI: 10.1086/687857.

## 2015

**2015.11** Ankit Khambhati, Kathryn Davis, Timothy Lucas, Brian Litt, **Danielle S. Bassett**. Dynamic network drivers of seizure generation, propagation and termination in human epilepsy. *PLoS Comp Biol*, 2015, 11(12):e1004608.

**2015.10** Shi Gu, Theodore Satterthwaite, John Medaglia, Muzhi Yang, Raquel Gur, Ruben Gur, **Danielle S. Bassett**. Emergence of System Roles in Normative Neurodevelopment. *PNAS.*, 2015, 112(44):13681-6.

**2015.9** Marcelo Mattar, Michael W. Cole, Sharon Thompson-Schill, **Danielle S. Bassett**. A Functional Cartography of Cognitive Systems. *PLoS Comp Biol*. 2015, 11(12):e1004533.

**2015.8** Shi Gu, Fabio Pasqualetti, Matthew Cieslak, Scott T. Grafton, **Danielle S. Bassett**. Controllability of Structural Brain Networks. *Nature Communications*. Nat Commun. 2015, 6:8414.

**2015.7** Urs Braun, Axel Schaefer, Henrik Walter, Susanne Erk, Nina Romanczuk-Seifert, Leila Haddad, Janina Schweiger, Oliver Grimm, Andreas Heinz, Heike Tost, Andreas Meyer-Lindenberg, **Danielle S. Bassett**. Dynamic Reconfiguration of Frontal Brain Networks During Executive Cognition in Humans. *PNAS*. 112(37):11678-83.

**2015.6** **Danielle S. Bassett**, Muzhi Yang, Nicholas F. Wymbs, Scott T. Grafton. Learning-Induced Autonomy of Sensorimotor Systems. *Nature Neuroscience*. 2015, 18(5):744-51

**2015.5** Theodore D. Satterthwaite, Simon N. Vandekar, Daniel H. Wolf, **Danielle S. Bassett**, Kosha Ruparel, Zarrar Shezad, Cameron Craddock, Russell T. Shinohara, Tyler M. Moore, Chad Jackson, David R. Roalf, Monica E. Calkins, Michael P. Milham, Hakon Hakonarson, Ruben C. Gur, Raquel E. Gur. Connectome-Wide Network Analysis of Youth with Psychosis Spectrum Symptoms. *Molecular Psychiatry*, 2015, doi: 10.1038/mp.2015.66. [Epub ahead of print].

**2015.4** John D. Medaglia, Mary-Ellen Lynall, **Danielle S. Bassett**. Cognitive Network Neuroscience. *Journal of Cognitive Neuroscience*. 2015. Mar 24:1-21.

**2015.3** Theodore D. Satterthwaite, Joseph W. Kable, Lillie Vandekar, Natalie Katchmar, **Danielle S. Bassett**, Claudia F. Baldassano, Kosha Ruparel, Mark A. Elliott, Yvette I. Sheline, Ruben C. Gur, Raquel E. Gur, Christos Davatzikos, Ellen Leibenluft, Michael E. Thase, Daniel H. Wolf. Common and Dissociable Dysfunction of the Value System in Bipolar and Unipolar Depression. *Neuropsychopharmacology*, 2015, 40(9):2258-68.

**2015.2** **Danielle S. Bassett**, Eli T. Owens, Mason A. Porter, M. Lisa Manning, Karen E. Daniels. Extraction of Force-Chain Network Architecture in Granular Materials Using Community Detection. *Soft Matter*, 2015, 11(14):2731-44.

**2015.1** Elizabeth N. Davison, Kimberly J. Schlesinger, **Danielle S. Bassett**, Mary-Ellen Lynall, Michael B. Miller, Scott T. Grafton, Jean M. Carlson. Brain Network Adaptability across Task States. *PLoS CB*, 2015, 11(1):e1004029.

## 2014

**2014.8** Urs Braun, Sarah F. Muldoon, **Danielle S. Bassett**. On Human Brain Networks in Health and Disease. Wiley's eLS invited review, 2014.

**2014.7** Christian Lohse, **Danielle S. Bassett**, Kelvin O. Lim, Jean M. Carlson. Resolving Structure in Human Brain Organization: Identifying Mesoscale Organization in Weighted Network Representations. *PloS Comp Biol*, 2014, 0(10):e1003712.

**2014.6** Michael W. Cole, **Danielle S. Bassett**, Jonathan D. Power, Todd S. Braver, Steven E. Petersen. Intrinsic and task-evoked network architectures of the human brain. *Neuron*, 2014, 83(1):238-51.

**2014.5** Ann M. Hermundstad, Kevin S. Brown, **Danielle S. Bassett**, Elissa M. Aminoff, Amy Frithsen, Arianne Johnson, Christine M. Tipper, Michael B. Miller, Scott T. Grafton, and Jean M. Carlson. Structurally-constrained relationships between cognitive states in the human brain. *PLoS Comp Biol*, 2014, 10(5):e1003591.

**2014.4** Mary L Arcila, Marion Betizeau, Xiaolu A Cambronne, Elmer Guzman, Nathalie Doerflinger, Frantz Bouhallier, Hongjun Zhou, Bian Wu, Neha Rani, **Danielle S. Bassett**, Ugo Borello, Cyril Huissoud, Richard H Goodman, Colette Dehay, Kenneth S Kosik. Novel primate miRNAs co-evolved with ancient target genes in germinal zone specific expression patterns. *Neuron*, 2014, 81(6):1255-62.

**2014.3** Florian Klimm, **Danielle S. Bassett**, Jean M. Carlson, Peter J. Mucha. Resolving structural variability in network models and the brain. *PLoS Comp Biol*, 2014, 10(3):e1003491.

**2014.2** Jean M. Carlson, David L. Alderson, Sean P. Stromberg, **Danielle S. Bassett**, Emily M. Craparo, Francisco Gutierrez-Villarreal, Thomas Otani. Measuring and modeling behavioral decision dynamics in collective evacuation. *PLoS One*, 2014, 9(2):e87380.

**2014.1** **Danielle S. Bassett**, Nicholas F. Wymbs, Mason A. Porter, Peter J. Mucha, Scott T. Grafton. Cross-linked structure of network evolution. *Chaos*, 2014, 24(1):013112.

## 2013

**2013.6** Christine M. Henzler, Zhonghan Li, Jason Dang, Mary Luz Arcila, Hongjun Zhou, Jingya Liu, Kung-Yen Chang, **Danielle S. Bassett**, Tariq M. Rana, Kenneth S. Kosik. Phased miRNA Re-regulation patterns during reprogramming. *Genome Biology*, 2013, 14(12):R149.

**2013.5** **Danielle S. Bassett**, Nicholas F. Wymbs, M. Puck Rombach, Mason A. Porter, Peter J. Mucha, Scott T. Grafton. Task-based core-periphery organization of human brain dynamics. *PLoS Comp Biol*, 2013, 9(9): e1003171.

**2013.4** Felix Siebenhuhner, Shennan A. Weiss, Richard Coppola, Daniel R. Weinberger, **Danielle S. Bassett**. Intra- and inter-frequency brain network structure in health and schizophrenia. *PLoS ONE*, 2013, 8(8): e72351.

**2013.3** Ann M. Hermundstad, **Danielle S. Bassett**, Kevin S. Brown, Elissa M. Aminoff, David Clewett, Scott Freeman, Amy Frithsen, Arianne Johnson, Christine Tipper, Michael B. Miller, Scott T. Grafton, Jean M. Carlson. Structural foundations of resting-state and task-based neural activity in the human brain. *PNAS*, 2013, 110(15):6169-74.

**2013.2** **Danielle S. Bassett**, Mason A. Porter, Nicholas F. Wymbs, Scott T. Grafton, Jean M. Carlson, Peter J. Mucha. Robust detection of dynamic community structure in networks. *Chaos*, 2013, 23(1):013142.

**2013.1** Alexander V. Mantzaris, **Danielle S. Bassett**, Nicholas F. Wymbs, Ernesto Estrada, Mason A. Porter, Peter J. Mucha, Scott T. Grafton, Desmond J. Higham. Dynamic network centrality summarizes learning in the human brain. *The Journal of Complex Networks*, 2013, 1(1):83-92.

## 2012

**2012.6** Karl W. Doron, **Danielle S. Bassett**, Michael S. Gazzaniga. Dynamic network structure of interhemispheric coordination. *PNAS*, 2012, 109(46):18661-8.

**2012.5** **Danielle S. Bassett**, David L. Alderson, Jean M. Carlson. Collective decision dynamics in the presence of external drivers. *Phys. Rev. E.*, 2012, 86:036105.

**2012.4** **Danielle S. Bassett**, Eli T. Owens, Karen E. Daniels, Mason A. Porter. The influence of network topology on sound propagation in granular materials. *Phys. Rev. E.*, 2012, 86:041306.

**2012.3** Nicholas F. Wymbs, **Danielle S. Bassett**, Peter J. Mucha, Mason A. Porter and Scott T. Grafton. Motor chunking is correlated with activation of the human sensorimotor putamen. *Neuron*, 2012, 74(5):936-46.

**2012.2** Cecilia Conaco, **Danielle S. Bassett**, Hongjun Zhou, Mary Luz Arcila, Sandie M. Degnan, Bernard M. Degnan, Kenneth S. Kosik. Functionalization of a proto-synaptic gene expression network. *PNAS*, 2012, 109 Suppl 1:10612-8.

**2012.1** **Danielle S. Bassett**, Brent G. Nelson, Bryon A. Mueller, Jazmin Camchong, Kelvin O. Lim. Altered resting state complexity in schizophrenia. *NeuroImage*, 2012, 59(3):2196-207.

## 2011

**2011.7** Shennan Aibel Weiss, **Danielle S. Bassett**, Daniel Rubinstein, Tom Holroyd, Jose Apud, Dwight Dickinson, Richard Coppola. Functional brain network characterization and adaptivity during task practice in healthy volunteers and people with schizophrenia. *Front. Hum. Neurosci*, 2011, 5:81.

**2011.6** Ann M. Hermundstad, Kevin Brown, **Danielle S. Bassett**, Jean M. Carlson. Learning, memory and the role of neural network architecture. *PloS Comp Biol*, 2011, 7(6):e1002063.

**2011.5** **Danielle S. Bassett**, Nicholas Wymbs, Mason Alexander Porter, Peter Mucha, Jean M. Carlson, Scott T. Grafton. Dynamic reconfiguration of human brain networks during learning. *PNAS*, 2011, 108(18):7641-6.

**2011.4** **Danielle S. Bassett**, Michael S. Gazzaniga. Understanding complexity in the human brain. *Trends in Cognitive Sciences*, 2011, 15(5):200-9.

**2011.3** Alex Fornito, Andrew Zalesky, **Danielle S. Bassett**, David Meunier, Ian Ellison-Wright, Murat Yucel, Stephen Wood, Karen Shaw, Jennifer O'Connor, Deborah Nertney, Bryan Mowry, Christos Pantelis, Edward T. Bullmore. Genetic influences on cost-efficient organization of human cortical functional networks. *J Neurosci*, 2011, 31(9):3261-3270.

**2011.2** Edward T. Bullmore, **Danielle S. Bassett**. Brain graphs: graphical models of the human brain connectome. *AR Clinical Psychology*, 2011, 7:113-40.

**2011.1** **Danielle S. Bassett**, Jesse A. Brown, Vibhas Deshpande, Jean M. Carlson, Scott A. Grafton. Conserved and variable architecture of human white matter connectivity. *NeuroImage*, 2011, 54(2):1262-1279.

## 2010

**2010.2** Mary-Ellen Lynall, **Danielle S. Bassett**, Peter J. McKenna, Manfred Kitzbichler, Ulrich Muller, and Edward T. Bullmore. Functional connectivity and brain networks in schizophrenia. *J Neurosci*, 2010, 30(28):9477-9487.

**2010.1** **Danielle S. Bassett**, Daniel L. Greenfield, Andreas Meyer-Lindenberg, Daniel R. Weinberger, Simon W. Moore, Edward T. Bullmore. Efficient physical embedding of topologically complex information processing networks in brains and computer circuits. *PloS Comp Biol*, 2010, 6(4):e1000748.

## 2009

**2009.4** **Danielle S. Bassett**, Edward T. Bullmore, Andreas Meyer-Lindenberg, Jose A. Apud, Daniel R. Weinberger, Richard Coppola. Cognitive fitness of cost-efficient brain functional networks. *Proc Natl Acad Sci U S A*, 2009, 106(28):11747-52

**2009.3** **Danielle S. Bassett**, Edward T. Bullmore. Human brain networks in health and disease. *Curr Opin Neurol*, 2009, 22(4):340-7.

**2009.2** Lorena Deuker, Edward T. Bullmore, Marie Smith, Soren Christensen, Pradeep J. Nathan, Brigitte Rockstroh, **Danielle S. Bassett**. Reproducibility of graph metrics of human brain functional networks. *NeuroImage*, 2009, 47(4):1460-8.

**2009.1** Edward Bullmore, Anna Barnes, **Danielle S. Bassett**, Alex Fornito, Manfred Kitzbichler, David Meunier, John Suckling. Generic aspects of complexity in brain imaging data and other biological systems. *NeuroImage*, 2009, 47(3):1125-34.

## 2004-2008

**Danielle S. Bassett**, Edward Bullmore, Beth A. Verchinski, Venkata S. Mattay, Daniel R. Weinberger, Andreas Meyer-Lindenberg. Hierarchical organization of human cortical networks in health and schizophrenia. *J Neurosci*, 2008, 28(37):9239-48.

Sophie Achard, **Danielle S. Bassett**, Andreas Meyer-Lindenberg, Ed Bullmore. Fractal connectivity of long memory networks. *Physical Review E*, 2008, 77:036104.

Jason L. Stein, Lisa M. Wiedholz, **Danielle S. Bassett**, Daniel R. Weinberger, Caroline Zink, Venkata S. Mattay, Andreas Meyer-Lindenberg. A validated network of effective amygdala connectivity. *NeuroImage*, 2007, 36(3):736-745.

Caroline F. Zink, Yunxia Tong, Qiang Chen, **Danielle S. Bassett**, Andreas Meyer-Lindenberg. Know your place: Neural processing of stable and unstable social hierarchy in humans. *Neuron*, 2008, 58:273-283.

**Danielle S. Bassett**, Andreas Meyer-Lindenberg, Sophie Achard, Thomas Duke, and Edward Bullmore. Adaptive reconfiguration of fractal small-world human brain functional networks. *Proc Natl Acad Sci U S A*, 2006, 103(51):19518-19523.

**Danielle S. Bassett** and Edward T. Bullmore. Small-world brain networks. *The Neuroscientist*, 2006, 12:512-523.

Samantha J Richerson, PhD, Mark Ingram, **Danielle Perry**, Mark Stecker MD PHD. Classification of the extracellular fields produced by activated neural structures. *BioMedical Engineering OnLine*, 2005, 4:53.

*Book Chapters:*

**Danielle S. Bassett** & Mary-Ellen Lynall. Network methods to characterize brain structure and function. In “Cognitive neurosciences: The biology of the mind (Fifth Edition)” edited by Michael Gazzaniga, Richard B. Ivry, George R. Mangun. In Press.

**Danielle S. Bassett** & Felix Siebenhühner. Multiscale network organization in the human brain. In . ‘Multiscale analysis and nonlinear dynamics: From genes to the brain’. Wiley, 2013.

**Danielle S. Bassett**, Edward T. Bullmore. Brain anatomy and small-world networks. In ‘Network approaches to diseases of the brain: Clinical applications in neurology and psychiatry’. Bentham, 2011.

Andreas Meyer-Lindenberg and **Danielle S. Bassett**. Nonlinear and cooperative dynamics in the human brain: Evidence from multimodal neuroimaging. In ‘Coordination: Neural, behavioral and social dynamics’, Complexity Program Series: 'Understanding Complex Systems'. Springer, 2006.

Book Reviews:

**Danielle S. Bassett**, Felix Siebenhühner. Spinning a mental web. Front Hum Neurosci, 2011, 5:141.

Academic Commentary:

Mika Rubinov, **Danielle S. Bassett**. Emerging evidence of connectomic abnormalities in schizophrenia. J Neurosci, 2011, 31(17):6263-6265.

Fabrizio De Vico Fallani, **Danielle S. Bassett**, Tianzi Jiang. Graph theoretical approaches in brain networks. Computational and Mathematical Methods in Medicine, 2012, 2012:590483.

Sarah Feldt Muldoon, **Danielle S. Bassett**. Why Network Neuroscience? Compelling evidence and current frontiers. Comment on “Understanding brain networks and brain organization” by Luiz Pessoa in Physics of Life Reviews. 2014 Sep;11(3):455-7.

Conference Proceedings and Teaching Material:

Ann M. Hermundstad, Kevin S. Brown, **Danielle S. Bassett** and Jean M. Carlson. Architectural constraints on learning and memory function. BMC Neuroscience, 2011, 12(Suppl 1):P31.

Ann M. Hermundstad, Kevin Brown, **Danielle S. Bassett**, Jean M. Carlson. Structural drivers of function in information processing networks. Appearing in the Proceedings of the Forty-Fifth Asilomar Conference on Signals, Systems, and Computers, 2012.

**Danielle S. Bassett**. Clinical applications of complex network analysis. Society for Neuroscience Short Course, [http://www.sfn.org/siteobjects/published/0000BDF20016F63800FD712C30FA42DD/205A577D83CA869B26F16CADE6373874/file/SC3\\_2010\\_Bassett.pdf](http://www.sfn.org/siteobjects/published/0000BDF20016F63800FD712C30FA42DD/205A577D83CA869B26F16CADE6373874/file/SC3_2010_Bassett.pdf).

Jean M. Vettel, **Danielle S. Bassett**, Reuben Kraft, Scott T. Grafton. Physics-based models of brain structure connectivity informed by diffusion weighted imaging. Army Science Conference, <http://www.armyscienceconference.com/manuscripts/R/RP-006.pdf>.

Other:

Fernández-Capetillo Ó, Yan N, Dionne J, **Bassett DS**, Sebastian S, Hendon C, Schlichting H, Baker M. Hopes for the year ahead. Nature. 2015 Jan 1;517(7532):111-3.

Unpublished Preprint:

1. John D. Medaglia, Shi Gu, Fabio Pasqualetti, Rebecca L. Ashare, Caryn Lerman, Joseph Kable, **Danielle S. Bassett**. Cognitive Control in the Controllable Connectome. Submitted.

## CONFERENCE PRESENTATIONS: (prior to 2013)

---

<i>SfN 2012</i>	New Orleans, LA	Oct 15, 2012
<i>OHBM Workshop on Brain Graphs</i>	Beijing, China	June 12, 2012
<i>Cognitive Neuroscience Meeting</i>	Chicago, IL	April 1, 2012
<i>American Physical Society March Meeting</i>	Boston, MA	Feb 28, 2012
<i>International Congress on Schizophrenia Research</i>	Colorado Springs, CO	April 4, 2011
<i>Society for Neuroscience</i>	San Diego, CA	Nov 15, 2010
<i>SAMSI Workshop on Complex Networks</i>	Res Triangle Park, NC	August 31, 2010
<i>Human Brain Mapping</i>	Barcelona, Spain	June 9, 2010
<i>Human Brain Mapping</i>	San Francisco, CA	June 18, 2009
<i>Society for Neuroscience</i>	San Diego, CA	Nov 4, 2007
<i>Human Brain Mapping</i>	Chicago, IL	June 14, 2007
<i>Coordination Dynamics</i>	Boca Raton, FL	Feb 23, 2007
<i>Society for Neuroscience</i>	Atlanta, GA	Oct 14, 2006
<i>Brain Complexity</i>	Hinxton, UK	Sept 27, 2006
<i>NIH Cambridge/Oxford Colloquium</i>	Oxford, UK	June 22, 2006
<i>NIH Cambridge/Oxford Colloquium</i>	Bethesda, MD	June 29, 2005

## CONFERENCE ABSTRACTS: (Since September 2013)

---

1. Laura Wiles, **Danielle S. Bassett**, David Meaney. Autaptic Connections Shift Network Excitability and Bursting. BMES 2014 Annual Meeting. October 22-25, 2014. San Antonio, Texas.
2. Laura Wiles, **Danielle S. Bassett**, David Meaney. Autaptic connections shift network excitability and bursting. Society for Neuroscience. November 15, 2014. Washington, DC.
3. Marcelo Mattar, Michael W. Cole, Sharon L. Thompson-Schill, **Danielle S. Bassett**. A dynamic functional cartography of cognitive systems. Society for Neuroscience. November 15, 2014. Washington, DC.
4. Ankit Khambhati, Brian Litt, **Danielle S. Bassett**. Dynamic functional reconfiguration in human epileptic networks. Society for Neuroscience. November 17, 2014. Washington, DC.
5. David Baker, Sarah F. Muldoon, Shi Gu, Ankit Khambhati, Marcelo Mattar, Qawi Telesford, Muzhi Yang, **Danielle S. Bassett**. Characterizing modular structure in neuroimaging data: The network community architecture toolbox. Society for Neuroscience. November 19, 2014. Washington, DC.
6. Sarah Muldoon, Jean M. Vettel, **Danielle S. Bassett**. Using stimulation to reveal structure-function relationships in dynamic brain networks. Society for Neuroscience. November 15, 2014. Washington, DC.
7. Qawi Telesford and **Danielle S. Bassett**. Node dynamics in time-dependent brain networks. Society for Neuroscience. November 15, 2014. Washington, DC.
8. Theodore D. Satterthwaite, S. N. Vandekar, Z. Shehzad, **D. S. Bassett**, C. Craddock, D. H. Wolf, R.T. Shinohara, K. Ruparel, M. A. Elliott, M. E. Calkins, R. C. Gur, M. Millham, R. E. Gur. Connectome-wide association study reveals multifocal patterns of dysconnectivity in youth with psychosis-spectrum symptoms. American College of Neuropsychopharmacology. December 7-11, 2014. Phoenix, Arizona.

9. Theodore D. Satterthwaite, S. N. Vandekar, Z. Shehzad, **D. S. Bassett**, C. Craddock, D. H. Wolf, R.T. Shinohara, K. Ruparel, M. A. Elliott, M. E. Calkins, R. C. Gur, M. Millham, R. E. Gur. Connectome-wide association study reveals multifocal patterns of dysconnectivity in youth with psychosis-spectrum symptoms. Fourth Biennial Conference on Resting State / Brain Connectivity. September 11-13, 2014. Cambridge, Massachusetts.
10. Theodore D. Satterthwaite, Joseph W. Kable, Lillie Vandekar, Natalie Katchmar, Claudia F. Baldassano, **Danielle S. Bassett**, Kosha Ruparel, Mark A. Elliott, Ellen Leibenluft, Ruben C. Gur, Raquel E. Gur, Christos Davatzikos, Yvette I. Sheline, Michael E. Thase, & Daniel H. Wolf. Common and Dissociable Abnormalities of the Valuation System in Unipolar and Bipolar Depression. Society of Biological Psychiatry. May 8-10, 2014. New York, New York.
11. Qiang Chen, **Danielle S. Bassett**, Roberta Rasetti, Joseph H. Callicott, Venkata S. Mattay, Daniel R. Weinberger. Altered Graph Theory Measures of Brain Networks in Patients with Schizophrenia: Potential Intermediate Phenotypes. Society of Biological Psychiatry. May 8-10, 2014. New York, New York.
12. Yuming Huang, **Danielle S. Bassett**, Karen E. Daniels. A community detection method for force chain network identification in 3D granular systems. PASI on Frontiers in Particulate Media: From Fundamentals to Applications. August 11-22, 2014. La Plata, Argentina.
13. Theodore D. Satterthwaite, **Danielle S. Bassett**, Matthew Weber, Brian Avants, Cook, Michael Millham, Yvette Sheline. American College of Neuropsychopharmacology. December 7-11, 2014. Phoenix, Arizona.
14. **Danielle S. Bassett**, Eli Owens, Mason Porter, Lisa Manning, Karen Daniels. A Community-Detection Method for Extracting Force Chain Architectures. 2014 Granular Gordon Conference on Granular and Granular-Fluid Flow. July 2014. Easton, MA.
15. John Medaglia, Fabio Pasqualetti, **Danielle S. Bassett**. Grounding cognitive and brain reserve in network control theory. SfN Translational Neuroscience Conference. November 2014. Arlington, VA.
16. John Medaglia, Fabio Pasqualetti, **Danielle S. Bassett**. Grounding cognitive and brain reserve in network control theory. International Neuropsychological Society conference. February 2015. Denver, CO.
17. John Medaglia, Roy Hamilton, Sharon Thompson-Schill, Shi Gu, **Danielle S. Bassett**. Network control theory as a mediator of transcranial magnetic stimulation effects. American Academy of Neurology. April 18-25, 2015. Washington, DC.
18. Sarah Muldoon, Jean Vettel, **Danielle S. Bassett**. Uncovering structural drivers of dynamic functional brain networks. Dynamics Days. January 9-11, 2015. Houston, TX.
19. Sarah Muldoon, Jean Vettel, **Danielle S. Bassett**. Stimulation reveals structural drivers of dynamic brain reorganization. American Physical Society. March 2-6, 2015. San Antonio, TX.
20. **Danielle S. Bassett**, Sarah Muldoon, Eric Bridgeford. Small-World Propensity: A novel statistic to quantify weighted networks. American Physical Society. March 2-6, 2015. San Antonio, TX.
21. Chad Giusti, Eli Owens, Karen Daniels, **Danielle Bassett**. Community-local homology of force chains in granular materials. American Physical Society. March 2-6, 2015. San Antonio, TX.
22. Sijia Zhang, **Danielle S. Bassett**, Beth Winkelstein. Using dynamic community detection to map collagen fiber network reorganization during tensile loading of the human facet capsular ligament. Summer Biomechanics, Bioengineering and Biotransport Conference. June 17-20, 2015, Snowbird Resort, UT.

23. Qawi Telesford, **Danielle S. Bassett**. Node Cohesion: Understanding changes in community structure in temporal fMRI networks. OHBM 2015. June 14-18, 2015. Honolulu, Hawaii.
24. Shi Gu, Theodore D. Satterthwaite, John Medaglia, Muzhi Yang, Raquel E. Gur, Ruben C. Gur, **Danielle S. Bassett**. Emergence of System Roles in Normative Neurodevelopment. OHBM 2015. June 14-18, 2015. Honolulu, Hawaii.
25. T.D. Satterthwaite, S.N. Vandekar, **D.S. Bassett**, D. H. Wolf, Z. Shehzad, C. Craddock, R.T. Shinohara, K. Ruparel, M. A. Elliott, T.M Moore, M.E. Calkins, M. Millham, R.C. Gur, R.E. Gur. Connectome-wide association study reveals dysconnectivity in control and default mode networks in youth with psychosis-spectrum symptoms. OHBM 2015. June 14-18, 2015. Honolulu, Hawaii.
26. Kimberly Schlesinger, Elizabeth Davison, **Danielle Bassett**, Mary-Ellen Lynall, Benjamin Turner, Taraz Lee, Michael Miller, Scott Grafton, Jean Carlson. Dynamic network properties of task-associated brain function. COSYNE, 2015.
27. Laura Wiles, **Danielle S. Bassett**, David F. Meaney. Driving Neural Networks: The Benefit of Controllability. BMES, 2015. October 7-10, 2015. Tampa, Florida.
28. Lucy Chai, Marcelo Mattar, Idan Blank, Evelina Fedorenko, **Danielle S. Bassett**. Functional Network Dynamics of the Language System. BMES, 2015. October 7-10, 2015. Tampa, Florida.
29. Ankit Khambhati, Brian Litt, **Danielle S. Bassett**. Virtual Cortical Resection of the Epileptic Network Reveals Controllers of Seizure Dynamics. BMES, 2015. October 7-10, 2015. Tampa, Florida.
30. Ankit Khambhati, Brian Litt, **Danielle S. Bassett**. Virtual Cortical Resection of the Epileptic Network Reveals Controllers of Seizure Dynamics. IWSP7: Epilepsy Mechanisms, Models, Prediction and Control. August 3-6, 2015. Melbourne, Australia.
31. Sarah F. Muldoon, Eric Bridgeford, **Danielle S. Bassett**. Quantifying small-worldness in weighted brain networks: Small-World Propensity. Society for Neuroscience 2015 October 17-21, Chicago, Illinois.
32. Raphael T. Gerraty, Juliet Y. Davidow, Karin Foerde, Adriana Galvan, **Danielle S. Bassett**, and Daphna Shohamy. The Role of Dynamic Network Flexibility in Probabilistic Reinforcement Learning. Society for Neuroscience 2015 October 17-21, Chicago, Illinois.
33. Sarah Feldt Muldoon, Julia Costantini, Ronald P. Lesser, Bob Webber, and **Danielle S. Bassett**. Brain state predicts success or failure of cognitive effort in suppressing epileptic after discharges. Society for Neuroscience 2015 October 17-21, Chicago, Illinois.
34. John D. Medaglia, W. Huang, S. Segarra, C. Olm, J. Gee, M. Grossman, A. Ribeiro, C. T. McMillan, **Danielle S. Bassett**. Frontoparietal network efficiency accurately classifies underlying pathology in corticobasal syndrome. Society for Neuroscience 2015 October 17-21, Chicago, Illinois.
35. Michael Cole, **Danielle S. Bassett**, Douglas Shultz. Brain activations are shaped by activity flow through both intrinsic and task-evoked functional networks. Society for Neuroscience 2015 October 17-21, Chicago, Illinois.
36. John D. Medaglia, T. S. Satterthwaite, M. Yang, S. Gu, Q. K. Telesford, R. Gur, R. E. Gur, and **Danielle S. Bassett**. Brain State Flexibility Predicts Diverse Cognitive Functions During Critical Periods in Neurodevelopment. Society for Neuroscience 2015 October 17-21, Chicago, Illinois.
37. Marcelo Mattar, Nicholas F. Wymbs, Scott T. Grafton, **Danielle S. Bassett**. Predicting Individual Differences in Learning Rate from Resting State fMRI. Society for Neuroscience 2015 October 17-21, Chicago, Illinois.

38. Lucy Chai, Marcelo Mattar, Idan Blanker, Ev Fedorenko, **Danielle S. Bassett**. Functional Network Dynamics of the Language System. Society for Neuroscience 2015 October 17-21, Chicago, Illinois.
39. Shi Gu, Fabio Pasqualetti, Matthew Cieslak, Scott T. Grafton, **Danielle S. Bassett**. Controllability of Structural Brain Networks. SIAM DS15. 2015 May 17, 2015, Salt Lake City, Utah.
40. John D. Medaglia, Shi Gu, Fabio Pasqualetti, Caryn Lerman, Joseph Kable, **Danielle S. Bassett**. Network Controllability as a Mediating Mechanism for Impulsivity. Cognitive Neuroscience Society. April 2-5, 2016, New York, NY.
41. Raphael T. Gerraty, Juliet Y. Davidow, Karin Foerde, Adriana Galvan, **Danielle S. Bassett**, and Daphna Shohamy. The Role of Network Flexibility in Reinforcement Learning. Cognitive Neuroscience Society. April 2-5, 2016, New York, NY.
42. Lia Papadopoulos, Eli T. Owens, Karen E. Daniels, **Danielle S. Bassett**. Dynamic structural network evolution in compressed granular systems. American Physical Society, 2016, March 14-18, 2016. Baltimore, MD.
43. Evelyn May Yin Tang, Chad Giusti, Matthew Cieslak, Scott T. Grafton, **Danielle S. Bassett**. The role of symmetry in the regulation of brain dynamics. American Physical Society, 2016, March 14-18, 2016. Baltimore, MD.
44. Evelyn May Yin Tang, Chad Giusti, Matthew Cieslak, Scott T. Grafton, **Danielle S. Bassett**. The role of symmetry in the regulation of brain dynamics. CoSyne, 2016, February 25 - 28, 2016. Salt Lake City, UT.
45. Ann Sizemore, Chad Giusti, Matthew Cieslak, Scott T. Grafton, **Danielle S. Bassett**. A novel perspective on neural network structure: connections and dissections of homological features. CoSyne, 2016, February 25 - 28, 2016. Salt Lake City, UT.
46. Anup Sharma, Daniel H. Wolf, Rastko Ciric, Natalie Katchmar, Aylin Daldal, Sage Rush, Kosha Ruparel, Claudia Baldassano, Joseph W. Kable, **Danielle S. Bassett**, Theodore D. Satterthwaite. Behavioral Motivation Relates to Dissociable Corticostriatal Functional Connectivity: A Dimensional Analysis of Whole Brain Networks Across Psychiatric Disorders. Society of Biological Psychiatry, 2016. Atlanta, Georgia.
47. Ann Sizemore, Chad Giusti, Matthew Cieslak, Scott T. Grafton, **Danielle S. Bassett**. A novel perspective on neural network structure: connections and dissections of homological features. SIAM 2016, June 15 - 16, 2016. SnowBird, UT.
48. Richard Betzel, Shi Gu, John Medaglia, Fabio Pasqualetti, **Danielle S. Bassett**. The cost of controlling the human connectome. Organization for Human Brain Mapping. June 26-30, 2016. Geneva, Switzerland.
49. Qawi Telesford, Jean M. Vettel, **Danielle S. Bassett**. Cohesive network reconfiguration underlying individual differences in early motor skill learning. Organization for Human Brain Mapping. June 26-30, 2016. Geneva, Switzerland.
50. Weiyu Huang, Leah Goldsberry, Nicholas F. Wymbs, Scott T. Grafton, **Danielle S. Bassett** and Alejandro Ribeiro. Graph Frequency Analysis of Brain Signals. Graph Signal Processing Workshop. May 25-27, 2016. Philadelphia, PA.
51. Ann E. Sizemore, Chad Giusti, Richard Betzel, Matthew Cieslak, Scott Grafton, **Danielle S. Bassett**. Exposing mesoscale connectivity patterns in the structural brain network. Bassett. ECC 2016 The 14th Experimental Chaos and Complexity Conference. May 16-19, 2016, Banff, Canada.

52. Richard F. Betzel, John D. Medaglia, Lia Papadopoulos, **Danielle S. Bassett**. Space-Independent Community Structure of the Human Connectome. Society for Neuroscience, November 12-16, 2016, San Deigo, CA.
53. Lucy Chai, Ankit N. Khambhati, Ruben C. Gur, Raquel E. Gur, Theodore D. Satterthwaite, **Danielle S. Bassett**. Evolution of Brain Network Dynamics in Neurodevelopment. Biomedical Engineering Society (BMES) Annual Meeting, October 5-8, 2016 in Minneapolis, MN.
54. Javier O. Garcia, Qawi K. Telesford, Arian Ashourvan, **Danielle S. Bassett**, Jean M. Vettel. Understanding rapid network reconfigurations within the alpha band following single pulses of TMS: a graph theoretical hodological approach. Society for Neuroscience, November 12-16, 2016, San Deigo, CA.
55. Evelyn Tang, Chad Giusti, Graham Baum, Shi Gu, Ari Kahn, David Roalf, Ruben C. Gur, Raquel E. Gur, Theodore D. Satterthwaite, and **Danielle S. Bassett**. White matter connectivity: controllability and dynamics. Mathematical Biology Institute. Workshop on Control and Observability of Network Dynamics. April 11-15, 2016 in Columbus, OH.
56. Evelyn Tang, Chad Giusti, Graham Baum, Shi Gu, Ari Kahn, David Roalf, Ruben C. Gur, Raquel E. Gur, Theodore D. Satterthwaite, and **Danielle S. Bassett**. White matter connectivity: controllability and dynamics. Mahoney Neuroscience Institute 32nd Annual Retreat, April 27, 2016, Philadelphia, PA.
57. Ari Kahn, Marcelo G. Mattar, Jean M. Veteel, Nicholas F. Wymbs, Scott T. Grafton. **Danielle S. Bassett**. Structural Correlates of Individual Differences in Motor Sequence Learning. Mahoney Neuroscience Institute 32nd Annual Retreat, April 27, 2016, Philadelphia, PA
58. John Medaglia, D S Harvey, N White, **Danielle S. Bassett**, Roy H. Hamilton. Network controllability underlies the role of the inferior frontal gyrus in word selection processes. Society for Neuroscience, November 12-16, 2016, San Deigo, CA.
59. J.D., **Bassett, D.S.**, Williams, K., & Hamilton, R.H. *CONNECTS*: A Translational Neuroscience Initiative in Networks and Neurorehabilitation. Medaglia, PIRM research day, Philadelphia, PA. May, 2016.
60. Graham L. Baum, Rastko Ciric, David R. Roalf, Tyler M. Moore, Ari Kahn, Rick Betzel, Megan Quarmley, Phillip Cook, Kosha Ruparel, Ruben C. Gur, Raquel E. Gur, **Danielle S. Bassett**,\* Theodore D. Satterthwaite\*. Modular evolution of structural brain networks in adolescence supports executive function. Society for Neuroscience, November 12-16, 2016, San Deigo, CA.
61. Ari E. Kahn, Marcelo G. Mattar, Jean M. Vettel, Nicholas F. Wymbs, Scott T. Grafton, **Danielle S. Bassett**. Structural Correlates of Individual Differences in Motor Sequence Learning. Society for Neuroscience, November 12-16, 2016, San Deigo, CA.
62. Arian Ashourvan, Shi Gu, Marcelo G. Mattar, Jean M. Vettel, **Danielle S. Bassett**. Energy landscape underpinning module dynamics in the human connectome. Society for Neuroscience, November 12-16, 2016, San Deigo, CA.
63. Shi Gu, Richard F. Betzel, Matthew Cieslak, Scott T. Grafton, Fabio Pasqualetti, **Danielle S. Bassett**. Optimal Trajectories for Brain State Transitions. Society for Neuroscience, November 12-16, 2016, San Deigo, CA.
64. Evelyn Tang, Chad Giusti, Graham Baum, Shi Gu, Ari E. Kahn, David Roalf, Ruben C. Gur, Raquel E. Gur, Theodore D. Satterthwaite, and **Danielle S. Bassett**. White matter connectivity supports increasing diversity of neural dynamics across normative neurodevelopment. Society for Neuroscience, November 12-16, 2016, San Deigo, CA.

65. Andrew Murphy, Shi Gu, Nicholas F. Wymbs, Scott T. Grafton, **Danielle S. Bassett**. Explicitly Linking Regional Activation and Functional Connectivity: Community Structure of Weighted Networks with Continuous Annotation. Society for Neuroscience, November 12-16, 2016, San Deigo, CA.
66. Ann Sizemore, Chad Giusti, Richard F. Betzel, Matthew Cieslak, Scott T. Grafton, **Danielle S. Bassett**. Closures and Cavities in the Human Structural Connectome. Society for Neuroscience, November 12-16, 2016, San Deigo, CA.
67. Chad Giusti, Greg Henselman, David Roalf, Ruben C. Gur, Raquel E. Gur, Theodore D. Satterthwaite, and **Danielle S. Bassett**. Topological characterization of mesoscale structure in resting state fMRI. Society for Neuroscience, November 12-16, 2016, San Deigo, CA.
68. Preya Shah, Sandhitsu Das, John Detre, Joel Stein, Mark Elliot, **Danielle S. Bassett**, Carlos Coto, Laura Wisse, Brian Litt, Kathryn A. Davis. Mapping the structural and functional network architecture of the medial temporal lobe using 7T MRI. Society for Neuroscience, November 12-16, 2016, San Deigo, CA.
69. Gregory Lieberman, Javier O. Garcia, **Danielle S. Bassett**, Michael J. Tarr, Jean M. Vettel. Network flexibility during multisensory integration of real-world events. Society for Neuroscience, November 12-16, 2016, San Deigo, CA.
70. Raphael Gerraty, Madeleine Sharp, Amanda Buch, **Danielle S. Bassett**, Daphna Shohamy. The role of dopamine in dynamic connectivity during learning: evidence from Parkinson's disease. Society for Neuroscience, November 12-16, 2016, San Deigo, CA.
71. Elisabeth A. Karuza, Ari E. Kahn, Sharon L. Thompson-Schill, **Danielle S. Bassett**. Beyond graph topology: Walk structure influences cluster-level surprisal effects in an on-line learning task. Psychonomics. November 17-20, 2016, Boston, Massachusetts, USA.
72. Preya Shah, **Danielle S. Bassett**, John A. Detre, Joel M. Stein, Mark A. Elliott, John Pluta, Elijah Valenciano, Carlos Coto, Laura Wisse, Brian Litt, Sandhitsu R. Das, Kathryn A. Davis. Disrupted structural and functional network connectivity of medial temporal lobe subregions in temporal lobe epilepsy. American Epilepsy Society Annual Meeting. December 2, 2016, Houston, Texas.
73. Medaglia, J.D., Huang, W., Thompson-Schill, S.T., Ribeiro, A., & **Bassett, D.S.** Functional Flexibility in the Structural Connectome Promotes Cognitive Flexibility. 10th FENS Forum of Neuroscience 2016. Copenhagen, Denmark.
74. Ankit N. Khambhati, Kathryn A. Davis, Timothy H. Lucas, Brian Litt, **Danielle S. Bassett**. Push-pull regulation of seizure evolution in the epileptic network. Gordon Research Conference: Mechanisms of Epilepsy & Neuronal Synchronization. August 20-21, 2016. Girona, Spain.
75. Heidi K. Norton, Harvey Huang, Daniel J. Emerson, Jesi Kim, Shi Gu, **Danielle S. Bassett**, Jennifer E. Phillips-Cremins. Quantifying hierarchical 3D genome folding dynamics with network modularity. PICS symposium. Oct 9, 2016. Philadelphia, PA.
76. Ralf Schmäzle, Matthew Brook O'Donnell, Javier O. Garcia, Chris Cascio, Joseph Bayer, **Danielle S. Bassett**, Jean Vettel, & Emily Falk. Brain connectivity dynamics during social interaction reflect social network structure. Social and Affective Neuroscience Society. March 16-18, 2017. Los Angeles, CA.
77. Ralf Schmäzle, Matthew Brook O'Donnell, Javier O. Garcia, Chris Cascio, Joseph Bayer, **Danielle S. Bassett**, Jean Vettel, & Emily Falk. Brain connectivity dynamics during social interaction reflect social network structure. International Communication Association. May 25-29, 2017. San Diego, CA.
78. Kanika Bansal, John D. Medaglia, **Danielle S. Bassett**, Jean M. Vettel and Sarah F. Muldoon. Using data-driven computational brain models to predict individual differences in task performance. CAN CTA Meeting, Austin, TX on October 25, 2016.

79. Kanika Bansal, John D. Medaglia, **Danielle S. Bassett**, Jean M. Vettel and Sarah F. Muldoon. Using data-driven models of brain function to predict individual differences in task performance. Dynamics Days, Silver Spring, MD on January 4-6, 2017.
80. Nathan Tardiff, **Danielle S. Bassett**, & Sharon L. Thompson-Schill. Arousal-induced changes in functional brain networks during exploration and exploitation. Cognitive Neuroscience Society, March 25-28, 2017.
81. Ann Sizemore, Chad Giusti, Richard Betzel, **Danielle S. Bassett**. Cliques and Cavities in the Human Connectome. Union College Mathematics Conference. Schenectady, New York on Dec 3-4, 2016.
82. Maxwell Bertolero, Thomas Yeo, **Danielle S. Bassett**, Mark D'Esposito. Connector hub connectivity predicts modularity and performance in multiple cognitive tasks. Society for Neuroscience, November 12-16, 2016, San Deigo, CA.
83. Lia Papadopoulos, Jason Kim, **Danielle S. Bassett**. Improving global synchronization via local rewiring in networks of Kuramoto oscillators. American Physical Society March Meeting. March 13-17, 2017. New Orleans, LA.
84. Katherine Wood, **Danielle S. Bassett**, Maria N. Geffen. Revealing hierarchical modular structure within cortical population neuronal activity. CoSyne. 23 - 26 February 2017 in Salt Lake City, UT.
85. Evelyn Tang, Marcelo G. Mattar, Sharon L. Thompson-Schill, **Danielle S. Bassett**. The learning of value is accompanied by a growing dimensionality of neural representations. CoSyne. 23 - 26 February 2017 in Salt Lake City, UT.
86. Sofia Karamintziou, Chiara Favaretto, Lorenzo Tiberi, António J. Bastos-Leite, Gerard R. Ridgway, Celeste Silveira, Karl J. Friston, **Danielle S. Bassett**, Fabio Pasqualetti. A control-theoretic approach to modulating brain network dynamics in schizophrenia. CoSyne. 23 - 26 February 2017 in Salt Lake City, UT.
87. Evelyn Tang, Chad Giusti, Graham Baum, Shi Gu, Ari E. Kahn, David Roalf, Tyler M. Moore, Kosha Ruparel, Ruben C. Gur, Raquel E. Gur, Theodore D. Satterthwaite, and **Danielle S. Bassett**. Increasingly diverse brain dynamics in the developmental arc: using Pareto-optimization to infer a mechanism. American Physical Society March Meeting. March 13-17, 2017. New Orleans, LA.
88. Jason Kim, Fabio Pasqualetti, **Danielle S. Bassett**. Topological Principles of Control in Dynamical Networks. American Physical Society March Meeting. March 13-17, 2017. New Orleans, LA.
89. Ankit N. Khambhati, Lucy Chai, Kathryn A. Davis, Rastko Ciric, Tyler Moore, Ruben C. Gur, Raquel E. Gur, Timothy H. Lucas, Brian Litt, Theodore D. Satterthwaite, **Danielle S. Bassett**. Homeostatic control of functional dynamics in human brain networks. BRAIN Initiative Investigators Meeting (Dec 12-14), Bethesda, MD.
90. Lia Papadopoulos, Jason Kim, **Danielle S. Bassett**. Improving global synchronization via local rewiring in networks of Kuramoto oscillators. SIAM Conference on Applications of Dynamical Systems (DS17) May 21-25, 2017. Snow Bird, Utah.
91. Jason Kim, Fabio Pasqualetti, **Danielle S. Bassett**. Topological Principles of Control in Dynamical Networks. SIAM Conference on Applications of Dynamical Systems (DS17) May 21-25, 2017. Snow Bird, Utah.
92. Steve Tompson, Emily Falk, **Danielle S. Bassett**. Social Context Moderates Neural Processing of Choice Information. Social and Affective Neuroscience Society. March 16-18, 2017. Los Angeles, CA.

93. Evelyn Tang, Chad Giusti, Graham Baum, Shi Gu, Ari E. Kahn, David Roalf, Tyler M. Moore, Kosha Ruparel, Ruben C. Gur, Raquel E. Gur, Theodore D. Satterthwaite, and **Danielle S. Bassett**. Moving to the Network Level in Brain Activity Control: Implications for Cognition and Development. SIAM Conference on Applications of Dynamical Systems (DS17) May 21-25, 2017. Snow Bird, Utah.
94. Jayson Jeganathan, Alistair Perry, **Danielle S. Bassett**, Gloria Roberts, Phil Mitchell, Michael Breakspear. Impaired structural network controllability in bipolar disorder and in young people at high genetic risk. OHBM 2017 June 27-29. Vancouver, Canada.
95. Xia CH, Ciric R, Ma Z, Shinohara RT, Betzel RR, Calkins ME, Cook PA, Garcia de La Garza A, Moore TM, Roalf DR, Ruparel K, Wolf DH, Gur RC, Gur RE, **Bassett DS**, Satterthwaite TD. Mapping patterns of network dysconnectivity in the developing brain to psychopathology across clinical diagnostic categories. OHBM 2017 June 27-29. Vancouver, Canada.
96. Ciric R, Wolf DH, Power JD, Roalf DR, Baum G, Ruparel K, Shinohara RT, Elliott MA, Eickhoff SB, Davatzikos C, Gur RC, Gur RE, **Bassett DS**, Satterthwaite TD. Benchmarking strategies for the control of motion artefact in studies of functional connectivity. OHBM 2017 June 27-29. Vancouver, Canada.
97. Xiaosong He, **Danielle Bassett**, Chaitanya Ganne, Lauren Kozlowski, Shatha Alwethinani, Na Young Kim, Noah Sideman, Ankit Khambhati, and Joseph I Tracy. Functional network dynamics of the language system in temporal lobe epilepsy. OHBM 2017 June 27-29. Vancouver, Canada.
98. Zhen Yang, Shi Gu, Irem Aselcioglu, Theodore Satterthwaite, Philip Cook, Stephen Bruce, Desmond Oathes, **Danielle Bassett**, Yvette Sheline. Functional Organization and Network Roles in MDD and PTSD: Categorical and Dimensional Perspective. OHBM 2017 June 27-29. Vancouver, Canada.
99. Boris C. Bernhardt; Min Liu; Seok-Jun Hong, Shi Gu; **Danielle Bassett**; Jonathan Smallwood; Andrea Bernasconi; Neda Bernasconi. Hippocampal subfield anomalies modulate whole-brain pathoconnectomics in temporal lobe epilepsy. OHBM 2017 June 27-29. Vancouver, Canada.
100. Lia Papadopoulos, Jason Kim, **Danielle S. Bassett**. Improving global synchronization via local rewiring in networks of Kuramoto oscillators. Keystone Symposium on Connectomics. Santa Fe, New Mexico, USA. March 5-8, 2017.
101. Ankit N. Khambhati, John D. Medaglia, Elisabeth A. Karuza, Sharon L. Thompson-Schill, **Danielle S. Bassett**. Functional subgraphs of brain networks modulate cognitive control processes between task states. Keystone Symposium on Connectomics. Santa Fe, New Mexico, USA. March 5-8, 2017.
102. Richard F. Betzel, **Danielle S. Bassett**. Connectome community structure: Weighted blockmodels versus modularity maximization. OHBM 2017 June 27-29. Vancouver, Canada.
103. Ankit N. Khambhati, Marcelo G. Mattar, **Danielle S. Bassett**. Non-negative matrix factorization uncovers topological modes of dynamic functional brain networks. OHBM 2017 June 27-29. Vancouver, Canada.
104. Richard Betzel & **Danielle S. Bassett**. Correspondence of connectome architecture with intracranial functional brain networks. NetSci 2017. Bloomington, IN
105. Andrew C. Murphy, Sarah F. Muldoon, David Baker, Adam Lastowka, Brittany Bennett, Muzhi Yang, **Danielle S. Bassett**. Structure, Function, and Control of the Musculoskeletal Network. NetSci 2017. Bloomington, IN
106. Xia CH, Ciric R, Ma Z, Shinohara RT, Betzel RR, Calkins ME, Cook PA, Garcia de La Garza A, Moore TM, Roalf DR, Ruparel K, Wolf DH, Gur RC, Gur RE, **Bassett DS**, Satterthwaite TD. Discovering linked dimensions of psychopathology and dysconnectivity in high-dimensional brain networks. Joint Statistical Meetings 2017. July 29th-Aug 3<sup>rd</sup> Baltimore, Maryland.

107. **Danielle S. Bassett**. The Network Architecture of Human Thought. ESEB 2017. August 20-25, Groningen, The Netherlands.
108. Steven Tompson, Ari Kahn, Emily Falk, Jean Vettel, **Danielle S. Bassett**. How do people learn social and non-social community structures? Context and Episodic Memory 2017. May 4-5, Philadelphia, PA.
109. Ari E. Kahn, Elisabeth A. Karuza, Sharon L. Thompson-Schill, Jean M. Vettel, **Danielle S. Bassett**. Network context drives learnability of relational data. Context and Episodic Memory 2017. May 4-5, Philadelphia, PA.
110. Richard F. Betzel, **Danielle S. Bassett**. The geometric, genetic, and structural basis of functional connectivity in whole-brain ECoG networks. NetSci 2017. Bloomington, IN.
111. Kanika Bansal, John D. Medaglia, **Danielle S. Bassett**, Jean M. Vettel, Sarah F. Muldoon. Data driven models of brain network dynamics predict individual differences in performance on a cognitively-demanding task. SIAM Network Science Workshop, July 13-14, Pittsburgh, PA.
112. Elizabeth E. Karuza, Sharon Thompson-Schill, **Danielle S. Bassett**. Community structure based on shared visual features guides acquisition of object categories. Cognitive Network Science 2017, A Satellite Workshop at NetSci2017, Indianapolis, US. 19 June 2017
113. Bruce Dore, Christopher Scholz, E Baek, Javier Garcia, **Danielle S. Bassett**, Jean M. Vettel, Emily B. Falk. vmPFC activity predicts population behavior by capturing consensus judgments of value. Social and Affective Neuroscience Society. March 16-18, 2017. Los Angeles, CA.
114. Muldoon SF, Pasqualetti F, Gu S, Cieslak M, Grafton ST, Vettel JM, **Bassett DS**. Data-driven modeling of brain dynamics: stimulation and control. American Mathematical Society. May 6-7, 2017. New York, NY.
115. Darrick Lee, Ann Sizemore, Robert Ghrist, **Danielle S. Bassett**. Random Clique Topology of the Stochastic Block Model. Applied Algebraic Topology 2017, August 8 - 12, 2017, Sapporo, Japan.
116. Ann Sizemore, Chad Giusti, Ari Kahn, Richard F. Betzel, **Danielle S. Bassett**. Cliques and cavities in the human connectome. Applied Algebraic Topology 2017, August 8 - 12, 2017, Sapporo, Japan.
117. Graham L. Baum, David R. Roalf, Rastko Ciric, Adon Rosen, Mark A. Elliot, Petra Rupert, Megan Quarmley, Philip A. Cook, Kosha Ruparel, Ruben C. Gur, Raquel E. Gur, **Danielle S. Bassett**, Theodore D. Satterthwaite. In-scanner head motion systematically impacts estimates of structural connectivity: implications for studies of structural brain network development. Society for Neuroscience, November 11-15, Washington, DC.
118. Xia CH, Ma Z, Ciric R, Gu S, Betzel RF, Calkins ME, Cook PA, Garcia de La Garza A, Moore TM, Roalf DR, Ruparel K, Wolf DH, Gur RC, Gur RE, Davatzikos C, Shinohara RT, **Bassett DS**, & Satterthwaite TD. Discovering linked dimensions of psychopathology and functional connectivity in high-dimensional brain networks. Society for Neuroscience, November 11-15, Washington, DC.
119. Richard F. Betzel, Katherine C. Wood, Maria Neimark Geffen, **Danielle S. Bassett**. Meso-scale structure and quotidian variation of neuronal networks estimated from two-photon imaging of mouse auditory cortex. Society for Neuroscience, November 11-15, Washington, DC.
120. Azeez Adebimpe, **Danielle S. Bassett**, Daniel Romer. Young adult neural responses to viewing gun violence videos. Society for Neuroscience, November 11-15, Washington, DC.

121. Daniel R. Schonhaut, Ari E. Kahn, Richard F. Betzel, **Danielle S. Bassett**. Gene co-expression patterns underlie cognitive process divisions of human neocortex. Society for Neuroscience, November 11-15, Washington, DC.
122. Katherine Wood, Richard F. Betzel, Christopher Angeloni, Mark Aizenberg, **Danielle S. Bassett**, Maria N. Geffen. Auditory fear conditioning drives changes in frequency representation and functional organization of neuronal populations in the auditory cortex. Society for Neuroscience, November 11-15, Washington, DC.
123. Teresa M. Karrer, **Danielle S. Bassett**, Danilo Bzdok. Automated Screening of Impaired Mental Domains in Schizophrenia. Computational Cognitive Neuroscience. September 6-8, 2017.
124. 40. Xia CH, Ma Z, Ciric R, Gu S, Betzel RF, Calkins ME, Cook PA, Garcia de La Garza A, Moore TM, Roalf DR, Ruparel K, Wolf DH, Gur RC, Gur RE, Davatzikos C, Shinohara RT, **Bassett DS**, & Satterthwaite TD. Discovering linked dimensions of psychopathology and functional connectivity in high-dimensional brain networks. Organization on Human Brain Mapping, June 27-30, Vancouver, BC.
125. Xia CH, Ma Z, Ciric R, Gu S, Betzel RF, Calkins ME, Cook PA, Garcia de La Garza A, Moore TM, Roalf DR, Ruparel K, Wolf DH, Gur RC, Gur RE, Davatzikos C, Shinohara RT, **Bassett DS**, & Satterthwaite TD. Discovering linked dimensions of psychopathology and functional connectivity in high-dimensional brain networks. Joint Statistic Meeting, July 29 - August 3, Baltimore, MD.
126. Lucy R. Chai, Ankit N. Khambhati, Ruben C. Gur, Raquel E. Gur, Theodore D. Satterthwaite, **Danielle S. Bassett**. Evolution of brain network dynamics in neurodevelopment. Biomedical Engineering Annual Meeting. Oct 6-8, 2016. Minneapolis, MN.
127. Andrew C. Murphy, Rastko Ciric, Theodore D. Satterthwaite, **Danielle S. Bassett**. The role of network architecture and control in working memory. Computational Cognitive Neuroscience. September 6-8, 2017.
128. Graham L. Baum, Rastko Ciric, Cedric Xia, David R. Roalf, Richard F. Betzel, Tyler M. Moore, Russell T. Shinohara, Philip A. Cook, Mark A. Elliott, Kosha Ruparel, Christos Davatzikos, Raquel E. Gur, Ruben C. Gur, **Danielle S. Bassett**, and Theodore D. Satterthwaite. Mapping network-level coupling of structural and functional connectivity during adolescence. Flux Congress. September 16-18, 2017. Portland, Oregon.
129. Arian Ashourvan, Sergio Pequito, Ankit N. Khambhati, Steve Baldassano, Kathryn Davis, Timothy Lucas, Jean M. Vettel, Brian Litt, George Pappas, **Danielle S. Bassett**. Parsing spatiotemporal dynamical stability in ECoG during seizure onset, propagation, and termination. ICTALS2017, University of Minnesota, Minneapolis, MN. August 20-23, 2017.
130. Boris Bernhardt, Min Liu, Shi Gu, Hong Seok-Jun, Jonathan Smallwood, Beth Jefferies, **Danielle S. Bassett**, Andrea Bernasconi, Neda Bernasconi. Temporal lobe epilepsy: microscopic hippocampal anomalies modulate whole-brain pathoconnectomics. American Epilepsy Society (AES) Annual Meeting, Washington, DC. December 1-5, 2017.
131. Zhen Yang, Shi Gu, Nicolas Honnorat, Desmond Oathes, Stephen Bruce, Taki Shinohara, Philip A. Cook, Irem Aselcioglu, Kristin Linn, Theodore D. Satterthwaite, **Danielle S. Bassett**, Yvette I. Sheline. Intrinsic functional organization and network roles in MDD and PTSD change with Cognitive Behavioral Therapy (CBT). ACNP, Dec 3-7, 2017, Palm Springs, CA.
131. Shi Gu and **Danielle S. Bassett**. Controllability and Trajectories of Brain State Transitions. NetSciX 2018. Jan 5-8 Hangzhou China.

132. Christopher Lynn, Lia Papadopoulos, Daniel Lee and **Danielle S. Bassett**. Collective human activity emerges from simple pairwise interactions. 9th Conference on Complex Networks. Boston, USA, March 5-8, 2018.
133. Ari Kahn, Elisabeth Karuza, Jean Vettel and **Danielle S. Bassett**. Network constraints on learnability of probabilistic motor sequences. 9th Conference on Complex Networks. Boston, USA, March 5-8, 2018.
134. Vivek Buch, **Danielle S. Bassett**, Timothy Lucas. Dynamic modularity of the fronto-temporo-limbic network precedes enhanced task performance. American Association of Neurological Surgeons. New Orleans, LO. April 28-May 2, 2018.
135. Lia Papadopoulos, **Danielle S. Bassett**. State- and distance-dependent adaptive rewiring in spatial networks. APS March Meeting 2018. March 5-9, 2018. Los Angeles, CA.
136. Evelyn Tang, Fabio Pasqualetti, **Danielle S. Bassett**. The control of brain activity across spatial and temporal scales. APS March Meeting 2018. March 5-9, 2018. Los Angeles, CA.
137. Christopher W. Lynn, Lia Papadopoulos, Daniel L. Lee, **Danielle S. Bassett**. Surges of collective human activity emerge from simple pairwise interactions. APS March Meeting 2018. March 5-9, 2018. Los Angeles, CA.
138. Jason Z. Kim, **Danielle S. Bassett**. Role of Connectivity in the Conformational Control of Maxwell Frames. APS March Meeting 2018. March 5-9, 2018. Los Angeles, CA.
139. Steven H. Tompson, Ari E. Kahn, Emily B. Falk, Jean M. Vettel, **Danielle S. Bassett**. Individual Differences in Learning Social and Non-Social Network Structures. SPSP Social Cognition Pre-Conference, Atlanta, March 1-3 2018.
140. Jérémy Lefort-Besnard, **Danielle S. Bassett**, Jonathan Smallwood, Daniel S. Margulies, Birgit Dernt, Oliver Gruber, Andre Aleman, Renaud Jardri, Gaël Varoquaux, Bertrand Thirion, Simon B. Eickhoff, Danilo Bzdok. Different shades of default mode disturbance in schizophrenia: Subnodal covariance estimation in structure and function. OHBM, Singapore, June 17-21, 2018.
141. Evelyn Tang, Marcelo Mattar, Chad Giusti, Sharon Thompson-Schill, **Danielle S. Bassett**. Effective learning is accompanied by high dimensional & efficient representations of neural activity. CoSyne. Mar 1-4, 2018. Denver, Colorado.
142. Katherine Wood, Richard F. Betzel, **Danielle S. Bassett**, Maria Geffen. Reorganization of cortical population neuronal activity following auditory fear conditioning. CoSyne. Mar 1-4, 2018. Denver, Colorado.
143. Teresa M. Karrer, **Danielle S. Bassett**, Birgit Dernt, Oliver Gruber, Andre Aleman, Renaud Jardri, Danilo Bzdok. Data-guided screening of impaired mental domains in schizophrenia. OHBM 2018, Singapore. July 17-21, 2018
144. Robert J. Jirsaraie, Sage Rush, Antonia N. Kaczurkin, Adon FG Rosen, Aristeidis Sotiras, Rastko Ciric, Phillip A. Cook, Mark A. Elliott, David R. Roalf, **Danielle S. Bassett**, Russell T. Shinohara, Ellen Leibenluft, Christos Davatzikos, Daniel H. Wolf, Theodore D. Satterthwaite. Accelerated Cortical Thinning within Structural Brain Networks is Associated with Irritability in Youth. Society of Biological Psychiatry (SOBP), New York NY, May 10-12, 2018.

145. Shi Gu, Rastko Ciric, Ruben Gur, Raquel Gur, Theodore D. Satterthwaite, **Danielle S. Bassett**. Unifying Modular and Core-Periphery Structure in Functional Brain Networks. OHBM 2018, Singapore. July 17-21, 2018.
146. Xiaosong He, **Danielle S. Bassett**, Chaitanya Ganne, Noah Sideman, Hela Saidi, Ellen Eline, Na Young Kim, and Joseph I Tracy. Increased Modal Controllability in Temporal Lobe Epilepsy. OHBM 2018, Singapore. July 17-21, 2018.
147. Jeniffer Stiso, Ankit N. Khambhati, Tommaso Menara, Ari E. Kahn, Kathryn A. Davis, Joseph Tracy, Timothy H. Lucas, Fabio Pasqualetti, and **Danielle S. Bassett**. Structural Connectivity Guides Direct Cortical Stimulation Through Optimal State Transitions. NetSci 2018, Paris, France. June 11-15, 2018.
148. Lydon-Staley, D.M., Ciric, R., Gur, R.C., Gur, R.E., Satterthwaite, T.D., and **Bassett, D.S.** Evaluation of confound regression strategies for the mitigation of motion artifact in studies of dynamic resting state functional connectivity. American Psychological Association. August 9-12, 2018, San Francisco, California.
149. Steven H. Tompson, Ari E. Kahn, Emily B. Falk, Jean M. Vettel, **Danielle S. Bassett**. Brain networks linked to social versus non-social network learning. Society for Neuroscience. 2018. Los Angeles.
150. Abigail Poteshman, Lia Papadopoulos, Evelyn Tang, Lee C. Bassett, **Danielle S. Bassett**. A Network Model of Transport through Quantum Antidots. NetSci 2018. Paris, France. June 11-14, 2018.
151. Medaglia, J.D., Harvey, D.Y., White, N., Kelkar, A., Zimmermann, J., **Bassett, D.S.**, Hamilton, R.H. (2018, June). Network Controllability in the Inferior Frontal Gyrus Relates to Controlled Language Variability and Susceptibility to Neuromodulation. Poster to be presented at the NIH High-Risk/High-Reward Research Symposium.
152. Eli J. Cornblath, Kosha Ruparel, Tyler Moore, Ruben Gur, Raquel Gur, David R. Roalf, Theodore D. Satterthwaite, **Danielle S. Bassett**. State transitions constrained by white matter architecture. Society for Neuroscience. 2018. San Diego.
153. Jennifer Stiso, Ankit N. Khambhati, Tommaso Menara, Ari E. Kahn, Joel M. Stein, Sandy R. Das, Michael Sperling, Richard Gorniak, Joseph Tracy, Brian Litt, Kathryn A. Davis, Fabio Pasqualetti, Timothy Lucas, & **Danielle S. Bassett**. White Matter Network Architecture Guides Direct Electrical Stimulation Through Optimal State Transitions. Society for Neuroscience. 2018. San Diego.
154. Harang Ju, Jason Z. Kim, **Danielle S. Bassett**. Neuronal networks underlying avalanche dynamics support stimulus filtering. Society for Neuroscience. 2018. Los Angeles.
155. Richard F. Betzel, Maxwell Bertolero, **Danielle S. Bassett**. A roadmap for multi-scale and multi-subject analysis of human functional brain networks. Society for Neuroscience. 2018. San Diego.
156. Garcia, J.O., Ashourvan, A., Thurman, S., Wasylyshyn, N., Tompson, S.H., Lauharatanahirun, N., Cieslak, M., Elliot, J., Okafor, G., Giesbrecht, B., Grafton, S., Flynn-Evans, E., **Bassett, D.S.**, and Vettel, J.M. Linking naturalistic sleep fluctuations to the energy landscape in dynamic brain modules. Society for Neuroscience. 2018. San Diego.
157. Lia Papadopoulos, Jason Z. Kim, Jurgen Kurths, **Danielle S. Bassett**. Development of structural patterns and synchronization from adaptive rewiring in networks of Kuramoto oscillators. SIAM Dynamical Systems. May 24, 2017. Salt Lake City, UT.

158. Richard F. Betzel, John D. Medaglia, **Danielle S. Bassett**. Diversity of meso-scale architecture in the human and non-human connectome. Annual Meeting of the Organization for Human Brain Mapping. Vancouver, BC. June 26, 2017.
159. Richard F. Betzel, **Danielle S. Bassett**. Correspondence of connectome architecture with intracranial functional brain networks. Annual Meeting of the Network Science Society. Indianapolis, IN. June 21, 2017.
160. Richard F. Betzel, Katherine C. Wood, Maria Neimark Geffen, **Danielle S. Bassett**. Meso-scale structure and quotidian variation of neuronal networks estimated from two-photon imaging of mouse auditory cortex. Annual Meeting of the Society for Neuroscience. Washington, DC. November 12, 2017.
161. Richard F. Betzel, **Danielle S. Bassett**. The specificity and robustness of long-distance connections in weighted, interareal connectomes. Annual Meeting of the Cognitive Neuroscience Society. Boston, MA. March 23, 2018.
162. Cedric H. Xia, Zongming Ma, Rastko Ciric, Shi Gu, Richard Betzel, Monica Calkins, Philip Cook, Angel Garcia de la Garza, Simon Vandekar, Zaixu Cui, Tyler Moore, David Roalf, Kosha Ruparel, Daniel Wolf, Ruben Gur, Raquel Gur, Christos Davtzikos, Russell Shinohara, **Danielle S. Bassett**, Theodore D. Satterthwaite, Linked dimensions of psychopathology and functional connectivity in brain networks. SfN, Nov 11–15, 2017, Washington, DC.
163. Cedric H. Xia, Zongming Ma, Rastko Ciric, Shi Gu, Richard Betzel, Monica Calkins, Philip Cook, Angel Garcia de la Garza, Simon Vandekar, Zaixu Cui, Tyler Moore, David Roalf, Kosha Ruparel, Daniel Wolf, Ruben Gur, Raquel Gur, Christos Davtzikos, Russell Shinohara, **Danielle S. Bassett**, Theodore D. Satterthwaite, Linked dimensions of psychopathology and functional connectivity in brain networks. OHBM, Jun 25–29, 2017, Vancouver, BC.
164. Elisabeth Karuza, **Danielle S. Bassett**, Mariya Bershad, Sharon Thompson-Schill. Pushing the boundaries of the learning process: Sensitivity to community structure across input domains. Psychonomic Society's Annual Meeting, Vancouver, Canada. November 9-12, 2017.
165. James E. Schmitt, Douglas Coulter, Steward Anderson, David Roalf, Laura Almasy, Beverly Emanuel, Donna McGinn, **Danielle S. Bassett**, Raquel E. Gu. Probing genomic variation in 22q11.2 affecting brain-behavior phenotypes of social processing in human and mouse model. ACNP. Dec 9-13, 2018. The Diplomat Beach Resort, Hollywood, Florida.
166. Chelsea Harmon, Raphael Gerraty, Juliet Davidow, Karin Foerde, Adriana Galvan, **Danielle S. Bassett**, Daphna Shohamy. Reinforcement Learning and Dynamic Network Flexibility in Adolescence. Flux Congress, 2018. Berlin Germany. August 30-Sept 1, 2018.
167. Jennifer Stiso, Ankit Khambhati, Tommaso Menara, Ari Kahn, Joel Stein, Sandihitsu Das, Richard Gorniak, Joseph Tracy, Brian Litt, Kathryn Davis, Fabio Pasqualetti, Timothy Lucas, **Danielle S. Bassett**. White Matter Network Architecture Guides Direct Electrical Stimulation Through Optimal State Transitions. CCN 2018, Philadelphia, PA. September 5-8, 2018.
168. Eli Cornblath, Rastko Ciric, Graham Baum, Kosha Ruparel, Tyler Moore, Ruben Gur, Raquel Gur, David Roalf, Theodore Satterthwaite, **Danielle S. Bassett**. Structural support for brain state transitions that contribute to working memory. CCN 2018, Philadelphia, PA. September 5-8, 2018.

169. Harang Ju, Jason Kim, **Danielle S. Bassett**. The network topology of neural systems supporting avalanche dynamics predicts stimulus propagation and recovery. CCN 2018, Philadelphia, PA. September 5-8, 2018.
170. Ari E. Kahn, Elisabeth A. Karuza, Jean M. Vettel, **Danielle S. Bassett**. Network constraints on learnability of probabilistic motor sequences. CCN 2018, Philadelphia, PA. September 5-8, 2018.
171. Christopher Lynn, Ari Kahn, **Danielle S. Bassett**. Structure from Noise: Mental Errors Yield Abstract Representations of Events. CCN 2018, Philadelphia, PA. September 5-8, 2018.
172. Andrew Murphy, Maxwell Bertolero, **Danielle S. Bassett**. The strength of functional connectivity between the frontoparietal and default mode systems correlates with behavioral performance on a variety of tasks in the Human Connectome Project. CCN 2018, Philadelphia, PA. September 5-8, 2018.
173. Maxwell Bertolero, Graham Baum, Theodore D. Satterthwaite, **Danielle S. Bassett**. Brain connectivity is modularly represented in the genome. CCN 2018, Philadelphia, PA. September 5-8, 2018.
174. Jason Z. Kim, **Danielle S. Bassett**. Learning Simple Computations in Dynamical Systems by Example. CCN 2018, Philadelphia, PA. September 5-8, 2018.
175. Christopher W. Lynn, Ari E. Kahn, & **Danielle S. Bassett**. Structure from noise: Mental errors yield abstract representations of events. CCS 2018. Thessaloniki Greece. 23-28 Sep 2018. Satellite on “Complexity from Cells to Consciousness: Free Energy, Integrated Information, and Epsilon Machines.”
176. Christopher W. Lynn, Ari E. Kahn, & **Danielle S. Bassett**. Structure from noise: Mental errors yield abstract representations of events. CCS 2018. Thessaloniki Greece. 23-28 Sep 2018. Satellite on “Physics of Self-Organization in Complex Systems.”
177. **Danielle S. Bassett**. Richer statistical models of mesoscale architecture in human brain networks. ENAR, Philadelphia, PA. March 24-27, 2018.
178. Carrisa V Cocuzza, Julia Hamilton, Emily Winfield, **Danielle S. Bassett**, Michael W Cole. A Network Science Cartography of Cognitive Control Systems. CCN 2018, Philadelphia, PA. September 5-8, 2018.
179. Baller EB, Kaczurkin AN, Sotiras A, Varol E, Moore TM, Xia HC, Calkins ME, Gur RE, Gur RC, Wolf DH, **Bassett DS**, Davatzikos C, Satterthwaite TD. Semi-supervised machine learning reveals cognitive heterogeneity in depressed youth. ACNP. December 9-13, 2018. Hollywood, Florida.
180. Eli J. Cornblath, Arian Ashourvan, Jason Z. Kim, Richard F. Betzel, Rastko Ciric, Graham L. Baum, Xiaosong He, Kosha Ruparel, Tyler M. Moore, Ruben C. Gur, Raquel E. Gur, Russell T. Shinohara, David R. Roalf, Theodore D. Satterthwaite, **Danielle S. Bassett**. White matter connectivity supports brain state transitions underlying working memory performance. 2019 Winter Conference on Brain Research. Jan 28-Feb 2, 2019. Snowmass, Colorado.
181. Vivek P. Buch, Cameron Brandon, Ryan Archer, Jennifer Stiso, Ashwin Rammayya, Andrew Yang, Andrew G. Richardson, **Danielle S. Bassett**, Timothy H. Lucas. Novel inter-trial resting state network analysis can reliably predict learning and performance of a simple cognitive reaction time task. American Association of Neurological Surgeons. San Diego, April 13-17, 2019

182. Ari E. Kahn, Christopher W. Lynn, Lia Papadopoulos, & **Danielle S. Bassett**. Human Information Processing in Complex Networks. American Physical Society March Meeting. March 4-8, 2019 in Boston, MA.
183. Abigail N. Potesman, Lia Papadopoulos, Evelyn Tang, **Danielle S. Bassett**, Lee C. Bassett. Network architecture of energy landscapes in mesoscopic quantum systems. American Physical Society March Meeting. March 4-8, 2019 in Boston, MA.
184. Christopher W. Lynn, Ari E. Kahn, **Danielle S. Bassett**. Structure from noise: Mental errors yield abstract representations of events. American Physical Society March Meeting. March 4-8, 2019 in Boston, MA.
185. Jason Z. Kim, **Danielle S. Bassett**. Design and Control of Finite Conformational Changes in Mechanical Networks. American Physical Society March Meeting. March 4-8, 2019 in Boston, MA.
186. Steven H. Tompson, Emily B. Falk, Matthew Brook O'Donnell, Christopher N. Cascio, Joseph B. Bayer, Jean M. Vettel, **Danielle S. Bassett**. Response Inhibition in Adolescents is Moderated by Brain Connectivity and Social Network Structure. 69th Annual International Communication Association (ICA) Conference. 24-28 May 2019, Washington, D.C.
187. Yoed N. Kenett, Evangelia G. Chryssikou, **Danielle S. Bassett**, & Sharon L. Thompson-Schill. Neural dynamics of generating and evaluating creative and non-creative ideas. Cognitive Neuroscience Society. San Francisco on March 23-26, 2019.

## SOFTWARE PACKAGES:

---

### *Contributed to:*

BCT (Brain Connectivity Toolbox), Indiana University (Olaf Sporns)

### *Produced and/or Updated by Bassett Lab:*

1. Network Community Toolbox, University of Pennsylvania (DS Bassett)
2. Dynamic Graph Metrics Toolbox, University of Pennsylvania  
(<https://doi.org/10.5281/zenodo.583170>)
3. Non-negative Matrix Factorization Toolbox for Dynamics Graphs  
(<https://doi.org/10.5281/zenodo.583150>)
4. Network Construction and Analysis Toolbox  
(<http://www.aesizemore.com/network-toolbox.html>)
5. Brain Graphs, a python library for functional connectivity and graph theory analysis of fMRI (Maxwell Bertolero), [https://github.com/mb3152/brain\\_graphs](https://github.com/mb3152/brain_graphs)
6. Diverse Club, a python library for analyses of rich and diverse clubs of biological and artificial networks, (Maxwell Bertolero), [https://github.com/mb3152/diverse\\_club](https://github.com/mb3152/diverse_club). This code recreates all analyses in Bertolero MA, Yeo BTT, D'Esposito M. The diverse club. Nature Communications. 2017;8:1277
7. HCP\_Performance, a python library for analyses of individual differences in network structure and cognitive performance for the Human Connectome Subject Subjects. [https://github.com/mb3152/hcp\\_performance](https://github.com/mb3152/hcp_performance), This code recreates all analyses in our paper that is under revision at Nature Human Behavior, A mechanistic model of connector hubs, modularity, and cognition.
8. Rewiring code from "The specificity and robustness of long-distance connections in weighted, interareal connectomes published: <https://www.richardfbetzel.com/code/>.
9. Code for this paper: Cedric H. Xia, Zongming Ma, Rastko Ciric, Shi Gu, Richard Betzel, Monica Calkins, Philip Cook, Angel Garcia de la Garza, Simon Vandekar, Zaixu Cui,

Tyler Moore, David Roalf, Kosha Ruparel, Daniel Wolf, Ruben Gur, Raquel Gur, Christos Davtzikos, Russell Shinohara, Danielle S. Bassett, Theodore D. Satterthwaite, Linked dimensions of psychopathology and functional connectivity in brain networks. Submitted <https://github.com/cedricx/sCCA/tree/master/sCCA/code/final>

## MENTORING, TEACHING, and OTHER EXPERIENCE:

---

### THESIS COMMITTEE MEMBER:

Samantha Schumm (Bioengineering)	Spring '18
Preya Shah (Bioengineering)	Spring '17
Ethan Solomon (Bioengineering)	Summer '16
Megan Sperry (Bioengineering)	Summer '16
Lohith Kini (Bioengineering)	Summer '16
Steve Baldassano (Bioengineering)	Summer '16
Long Xie (Bioengineering)	Spring '16
Seth Madlonkay (Neuroscience)	Spring '16
Sijia Zhang (Bioengineering)	Spring '15
Hoameng Ung (Bioengineering)	Summer '15
Modupe Alexandra Adegoke (Bioengineering)	Summer '15
Ankit Khambhati (Bioengineering)	Fall '14
Yunshu Fan (Neuroscience)	Summer '14
Marcelo Mattar (Psychology)	Summer '14
Shi Gu (Applied Mathematics)	Summer '14
Muzhi Yang (Applied Mathematics)	Summer '14
Sarah Middleton (Genomics and Computational Biology)	Winter '14
Andrew Gifford (Neuroscience)	Winter '14
Harini Eavani (Engineering and Applied Science)	Fall '13

### QUALIFICATIONS EXAM COMMITTEE:

Christopher W. Lynn (Physics)	Spring '18
Kyra Schapiro (Neuroscience)	Spring '17
Briana Last (Psychology)	Spring '17
Adrianna Familiar (Psychology)	Spring '16
Preya Shah (Bioengineering)	Spring '16
Steve Baldassano (Bioengineering)	Fall '15
Laura Wiles (Bioengineering)	Fall '15
Nathan Tardiff (Psychology)	Spring '15
Lohith Kini (Bioengineering)	Summer '14
Long Xie (Bioengineering)	Fall '14
Hoameng Ung (Bioengineering)	Summer '14
Modupe Alexandra Adegoke (Bioengineering)	Summer '14

### PRIMARY RESEARCH SUPERVISOR:

High School Students:	
Alexa Spagnola	Summer '17
Ryan O'Donnell	Summer '16
Mallika Dinakar	Summer '16
Soo Jang (Peddie Highschool)	Summer '15
Accepted to MIT	
Sophie Fisher (Agnis Irwin)	Summer '15
Caroline Casey (Peddie Highschool)	Summer '14
Now an undergrad at Penn	
Adam Lastowka (Open Connections)	Summer '14

Undergraduate Students:

*Present:*

Nico Christianson (Applied Mathematics)	Summer '18 - present
Andrej Ilic (Bioengineering)	Summer '18 - present
Nathaniel Nyema (Bioengineering)	Summer '18-present
Melanie Hillman (Bioengineering)	Fall '17-present
Abigail Potesman (Physics; University Scholars Program)	Sum '17-present
Pranav Reddy (Vagelos Scholars Program in Molecular Life Sciences)	Fall '15 – present

*Past*

Vidula Kopli (Bioengineering)	Fall '16-Sum '18
Melissa Judge (Bioengineering, SunFest Program)	Summer '18
Yueqi Ren (Bioengineering)	Spring '16-Spring '18
Caleb Chen (Cognitive Science)	Spring '18
Christian Rodriguez (Bioengineering)	Fall '17
Martin Rubin (Mathematics)	Sum '17
Elena Wu-Yan (Computer Science, Cognitive Science)	Spring '16-Fall '17
Jason Grosz (Bioengineering)	Fall '16-Fall '17
Aditya Srivatsan (Electrical and Systems Engineering)	Spring '16-Sum '17
Lucy Chai (Penn, Bioengineering)	Summer '14-Spr '17
Julia Costantini (Bioengineering)	Fall '14-Spr '17
James Bartolozzi (Digital Media & Design)	Spring '15 – '16
Kanika Mohan (Bioengineering)	Spring '16-Sum '17
Andrew Maguire (Vagelos Scholar)	Fall '14-Sp '15
Roshan Ravishankar (Wharton)	Fall '15 – Fall '16
Alex Kostiuk (Vagelos Scholar)	Fall '14-Summer '16
Eric Bridgeford (John Hopkins, Bioengineering)	Summer '14
Zitong Zhang (Tsinghua University)	Summer '14
David Baker (Electrical and Systems Engineering) – undergraduate research for credit	Fall '13-Sp '15

Research Assistants:

Karol Szymula Graduated with degree in bioengineering from Penn in '18	Summer '18 to present
Jonathan Soffer Moved to training to be a highschool teacher	Summer '16 to present
Felix Siebenhuener Moved to postdoc at Helsinki	2011-2012

Graduate Students:

*Present:*

Dale Zhou (Ph.D. candidate in Neuroscience)	Summer '18 to present
Keith Wiley (Ph.D. candidate in Physics)	Summer '18 to present
Harang Ju (Ph.D. candidate in Neuroscience)	Spring '18 to present
Christopher W. Lynn (Ph.D. candidate in Physics)	Fall '17 to present
Jeni Stiso (Ph.D. candidate in Neuroscience)	Fall '17 to present
Eli Cornblath (Ph.D. candidate in Neuroscience)	Fall '17 to present
Ann Sizemore (Ph.D. candidate in Bioengineering)	Jan '17 to present
Jason Kim (Ph.D. candidate in Bioengineering)	Fall '16 to present
Lia Papadopoulos (Ph.D. candidate, Physics)	Fall '15 to present
Andrew Murphy (Ph.D. candidate, Bioengineering)	Fall '15 to present
Ari Kahn (Ph.D. candidate, Neuroscience)	Jan '15 to present

*Past:*

Pooja Shah (M.S. candidate in Finance)	Fall '17-present
Laura Wiles (Ph.D. candidate, Bioengineering)	Fall '14 to Sum '17

Shi Gu (Ph.D. candidate, Applied Math & Computational Sci.) - Graduated in May, 2016	Fall '13-'16
Marcelo Mattar (Ph.D. candidate, Psychology) - Graduated in July, 2016	Jan '15 to '16
Muzhi Yang (Ph.D. candidate, Applied Math & Computational Sci.) - On medical leave of absence in China	Fall '13 to Summer '15
Ann Sizemore (M.S. candidate, Bioengineering) - Thesis Research in my group - Graduated December, 2015	Spring '15 to Dec '15
Ankit Khambhati (Bioengineering); graduate study - Graduated in December, 2015	Summer '15 to Dec '15

Postdoctoral Fellows:

*Present:*

Erin Teich, Physicist	Fall '18 to present
Xiaosong He, Bioengineer	Fall '18 to present
Zhixin Lu, Physicist	Fall '17 to present
David Lydon-Staley, Psychologist	Fall '17 to present
Maxwell Bertolero, Neuroscientist	Sum '17 to present

*Past:*

Evelyn Tang, Physicist Now Group Leader at Max Planck Institute for Dynamics and Self-Organization in Göttingen, Germany	Fall '15 to Summer '18
Azeez Adebimpe, Electrical Engineer Now postdoc with Theodore D. Satterthwaite	Fall '16 to Spring '18
Richard Betzel, Systems Neuroscientist Assistant Professor of Psychological & Brain Sciences at Indiana University	Fall '15 to summer '18
Elisabeth Karuza, Psychologist Assistant Professor of Psychology at Pennsylvania State University	Spring '16 to Summer '18
Steve Tompson, Psychologist Now Robert J. Eichelberger Distinguished Postdoctoral Fellow US Army Research Laboratory	Fall '16 to Summer '18
Ankit Khambhati, Bioengineer Now senior postdoc at UCSF with Eddie Chang	Spring '16 to Fall '17
Chad Giusti, Mathematician Now Assistant Professor of Mathematics at U Delaware	Fall '14 to Sum '17
Arian Ashourvan, Psychologist Now senior postdoc at Penn with Brian Litt	Fall '15 to Sum '17
Shi Gu, Applied Mathematician Co-Supervised with Theodore Satterthwaite Now Tenured Professor at Chengdu University of Science and Technology In 2017, he was listed in Forbes China List Of 300 Top Innovators, Entrepreneurs And Leaders Under Age 30 (Shi Gu was 26)	Fall '16 – Sum '17
Ralf Schmaelzle, Psychologist Co-supervised with Emily Falk Now Assistant Professor at Michigan State	Fall '15 to Summer '16
Qawi Telesford, Bioengineer Now at NKI Rockland as Senior Research Scientist	Winter '14 to Summer '16
Sarah Muldoon, Physicist Now an Assistant Professor of Mathematics SUNY Buffalo	Winter '14 – Sum '15
John Medaglia, Clinical Neuropsychologist Now Research Assistant Professor Department of Psychology, University of Pennsylvania Awarded an NIH Early Independence Award (DP5)	Fall '14 to Fall '15

Visiting Fellows:

Richard Rosch (University College London)	Fall '18
Karolina Fine (Centre for Modern Interdisciplinary Technologies at Nicolaus Copernicus University (Poland))	Fall '18
Daniela Zoller (EPFL)	Summer '18
Chris Vriend (VU University Medical Center, Amsterdam)	Spring '17
Urs Braun (Central Institute of Mental Health, Mannheim, Germany)	Winter '14, '15
Jean Vettel (Army Research Laboratory)	Fall '15 to present
Greg Lieberman (Army Research Laboratory)	Fall '15 to present

SECONDARY RESEARCH SUPERVISOR:

Ursula Tooley (with Allyson Mackey, Department of Psychology) Ph.D. Candidate in Neuroscience	Spring '18-present
Teresa Karrer (with Danilo Bzdok at University of Aachen, Germany) Graduate student in the IRTG2150	Fall '16 to present
Jeremy Lefort-Besnard (with Danilo Bzdok at University of Aachen, Germany) Graduate student in the IRTG2150	Fall '16 to present
Shi Gu (Psychiatry; with T. D. Satterthwaite) Postdoctoral research associate	Summer '16 to Sum '17
Azeez Adebimpe (Communications; with Dan Romer) Postdoctoral research associate	Summer '16 to present
Cedric Xia (Neuroscience; with T.D. Satterthwaite) Ph.D. Candidate	Spring '16 to present
Graham Baum (Neuroscience; with T.D. Satterthwaite) Ph.D. Candidate	Fall '15 to present
Marcelo Mattar (Psychology; with Sharon Thompson-Schill, Geoffrey Aguirre) Published in PLoS Comp Biol	2013-Jan '15
Ankit Khambhati (Bioengineering; with Brian Litt) Published in PLoS Comp Biol	2013-Summer '15
Christian Lohse, Undergraduate Research Experience Published in PLoS Comp Biol	2012-2013
Florian Klimm, Undergraduate Research Experience Published in PLoS Comp Biol	2012-2013
Undergraduate Thesis: Mary-Ellen Lynall, University of Cambridge Title: "Functional Connectivity and Brain Networks in Schizophrenia" Published in J Neurosci	2009
Master's Thesis: Lorena Deuker, University Konstanz, Dept of Psychology Title: "Reproducibility of Graph Metrics in MEG" Published in Neuroimage	2008-2009

TEACHING:

*At University of Pennsylvania:*

EAS 244 Curiosity: Ancient and Modern Thinking about Thinking 13 students; Co-taught with Prof. Peter Struck	Fall '18
BE 566 Network Neuroscience 15 students; Instructor rating: 3.92/4; Course rating 3.54/4.	Fall '17
ENM 240 Linear Algebra and Differential Equations 15 students; Co-taught with Prof. Arjun Raj	
BE 566 Network Neuroscience 26 students; Instructor rating: 3.80/4; Course rating 3.65/4.	Spring '16
ENM 375 Fundamentals of Biostatistics 34 students; Instructor rating 3.70/4; Course rating 3.33/4. Co-taught with Prof. Jennifer Philips-Cremens	Fall '15

BE 566 Network Neuroscience 24 students; Instructor rating: 3.76/4; Course rating 3.24/4.	Fall '14
Independent Study:	
Harang Ju "Intersections in network representations & network models"	Fall '18
Vidula Kopli "Graph signal processing for human neuroimaging"	Fall '18
Brooke Berhbaum "Evolution of semantic networks in biomedical texts"	Spring '17
Lucy Chai "Evolution of semantic networks in biomedical texts"	Spring '17
Mary Sun, Wharton "Computationally Defining Scientific Fields"	Spring '16
James Bartolozzi, Digital Media and Design "White Matter Architecture of Human Brain"	Spring '16
David Kersen, MSTP Program "Statistical Mechanics of Complex Networks"	Spring '16
Ann Sizemore, Bioengineering "Algebraic Topology"	Spring '15
Ted Fujimoto, Bioengineering "Intersubject Network Construction"	Spring '15
Emily Hyman, Electrical & Systems Engineering "Social Information Transmission"	Spring '14
Shi Gu, Applied Mathematics & Computational Science "Network Dynamics"	Fall '13
Muzhi Yang, Applied Mathematics & Computational Science "Network Geometry"	Fall '13
Andrew Maguire, Biochemistry "Network Growth Models"	Fall '15
<i>At Other Institutions:</i>	
Co-Developed and Co-Taught UCSB Graduate Course On Interdisciplinary Methods in Brain Sciences	Spring '12,'13
Supervisor of Physics 1A for the University of Cambridge Clare, Kings and Churchill Colleges	2005-2009
Laboratory Teaching Assistant Pennsylvania State University	2002-2004
Tutor for undergraduate math and physics Pennsylvania State University	2000-2002
INDUSTRY PLACEMENT:	
GlaxoSmithKline, Cambridge. Study #TMT110737; PI Odile Dewit.	2008-2009
UNDERGRADUATE RESEARCH:	
<i>Biomaterials and Bionanotechnology Summer Institute (NSF, NIH Awards)</i> Research Title: Metal Ion Partitioning in Giant Vesicles	State College, PA Summer 2003
<i>Bucknell University (NSF Research Experience for Undergraduates Award)</i> Research Title: Physical Modeling of Nerve Impulses	Lewisburg, PA Summer 2002
CLINICAL EXPERIENCE:	
<i>Morning Star Orthopedics</i> Medical Secretary and Patient Care	Elverson, PA Summer 2000
<i>The Reading Hospital and Medical Center</i> Unit Support Worker in Patient Care	Reading, PA Feb-June 2000

## OUTREACH & SERVICE

---

### EXTERNAL ACADEMIC SERVICE:

American Physical Society, GSNP Executive Committee	2018-present
Senior Scientific Advisor, National Center for Brain Mapping	2016-present
NetSci-X17 program committee	2016-2017
Co-Organizing NetSci symposium “Brain Networks” in Seoul, South Korea	2016-present
Co-Organizing Keystone Symposia “Connectomics” (2017)	2015-present
Inaugural Steering Committee Member for “Computational Cognitive Neuroscience Society”	2015-present
Co-Organizing Inaugural Meeting of the “Computational Cognitive Neuroscience Society”	2016-present
Co-Organized the 3rd Whistler Scientific Workshop: Whistler-Blackcomb, BC, Canada – March 6-9, 2016 Brain Functional Organization, Connectivity and Behavior	2016
Penn State Physics Department External Advisory Board	2015-present
Program Committee Member: NetSci X in Warsaw, Poland	2016
Co-Organized SIAM Featured Minisymposium “Applications of Algebraic Topology to Neuroscience”	2015
Co-Organized NetSci symposium “Brain Networks” in Zaragoza, Spain	2015
Program Committee Member: SIAM Workshop on Network Science	2015
Organized NSF Workshop on Quantitative Theories of Learning, Memory, and Prediction (Co-organizers: William Bialek and Nancy Kopell) Program Support: Betty Tuller and Krastan Blagoev	2014
SIAG-DS Advisory Committee	2014-2015
Co-organized Sage JRF Workshop on Network Science for April, 2013	2013
Co-edited special issue of Computational & Mathematical Methods in Medicine	2012
Winston Churchill Scholarship Screening Committee	2011-2012
Sage Center for the Mind, UCSB, website assistant	2011-present
KITP mini-symposium, organizational assistant	2010-2011
International Hospitality Volunteer, Pennsylvania State University	2002-2004
Habitat for Humanity	2000

### INTERNAL ACADEMIC SERVICE:

AWE (Advancing Women in Engineering), Faculty Oversight Committee	2017-2018
Advisory Board for MindCORE, The Mind Center for Outreach, Research and Education at Penn	2017
AdHoc committee for full professor dossier compilation	2017
BE Seminar series committee	2017-2018
Faculty Fellowship Review Committee	2016
Pinkel lecture 2017 committee	2016
Schwan lecture 2017 committee	2016
Hopper lecture 2017 committee	2016
BE Faculty Search Committee, SEAS at Penn	2016-2017
SAS Velay Fellowship Committee 2016	2016
SAS Faculty Planning Group on Mapping the Mind	2015-2016
BE Faculty Search Committee, SEAS at Penn	2015-2016
Abraham Noordergraaf Research Fellowship 2016	2016
Blue Sky Committee, SEAS at Penn	2015
Data and Computational Science Strategic Planning at Penn	2015
Applied Mathematics & Computational Science Executive Committee	2015

Graduate Admissions Committee for Applied Mathematics & Comp Sci at Penn	2014-present
Graduate Admissions Committee for Bioengineering at Penn	2013-present

POSITIONS AND ORGANIZATIONS:

Founder and Director of Penn's Network Visualization Program	2014-present
Faculty Co-advisor for Society of Women Engineers	2013-present
Adopt-a-Physicist Volunteer	2009-present

PRESENTATIONS AND EVENTS:

Penn BBB109 Guest Lecture	April 18, 2018
Penn CBICA Guest Lecture	April 18, 2018
Quaker Days BFS Faculty Spotlight Lecture	April 18, 2018
Spoke to Penn SWE's HighSchool Shadowing Day (all girls)	Nov 12, 2017
Gave guest lecture in Biostats Course (Shinohara)	April 12, 2017
Gave guest lecture in Penn CBICA Grant Writing Course	April 12, 2017
Gave guest lecture in Penn BBB109	April 12, 2017
Council for Women of Penn Psychology, Faculty Guest	March 21, 2017
Spoke at Penn's GABE BETA Day	Jan 27, 2017
Penn Women in Physics Lunch, Faculty Guest	Nov 18, 2016
Penn Advancing Women in Engineering, Faculty Guest	Nov 8, 2016
Haverford Women in Science, Faculty Guest	Nov 2, 2016
Council for Women of Penn Psychology, Faculty Guest	Oct 21, 2016
Hampshire Women in Science, Faculty Guest	Oct 17, 2016
Spoke at Penn Children's Center to 3-5 yr olds about neuroscience	April 27, 2016
Co-Led Engineering Faculty Teaching Forum on "Getting Students to Work with Data"	April 20, 2016
Spoke at Penn SWE's <i>GEARS Day</i> , as closing ceremony speaker	Mar 19, 2016
Ran 3 workshops at Penn SWE's <i>GEARS</i> day for highschool girls	April 19, 2016
Spoke at Penn's GABE Professional Development Series	Nov 3, 2015
Gave guest lecture in BE 558 Principles of Biological Fabrication	April 23, 2015
Ran 4 workshops at Penn SWE's <i>GEARS</i> day for highschool girls	April 11, 2015
Spoke at Penn Children's Center to 3-5 yr olds about neuroscience	April 10, 2015
Spoke at Harnwell College House	April 9, 2015
Spoke at Penn's GABE Academia Career Panel	March 23, 2015
Ran Art of Network Visualization workshop at GABE BETA Day	January 30, 2015
Spoke at Women in Computer Science Residential: Dinner Discussion	Oct 17, 2014
Participated in Penn's NGG Student-Faculty Lunch	July 9, 2014
Spoke at Penn's STSS on Network Science	July 10, 2014
Spoke at Penn Children's Center to 18-36 month olds about neuroscience	May 6, 2014
Spoke at Penn's SEAS Faculty Interview Process Workshop	March 21, 2014
Spoke at Bayonne NJ Public Highschool about career path and research	March 18, 2014
Spoke at RIT about career paths to students who had not yet selected a major	Feb 20, 2014
Spoke at Penn Career Services's "Faculty Conversations: Preparing For Campus Interviews for Academic Jobs – Science, Mathematics And Engineering"	Feb 6, 2014
Spoke to homeschooled high school students at Open Connections	Jan 14, 2014
Spoke to Penn's BE graduate students about career path and research	Jan 13, 2014
Spoke to underrepresented minorities (McNair Fellows at Depaul University)	Dec 4, 2013
Spoke at Penn's CCN Workshop on the Faculty Job Search	Nov 18, 2014
Participated in Penn's Highschool Shadowing Day as co-advisor of the Society For Women Engineers	Oct 21, 2013
Participated in Penn's Advancing Women in Engineering Faculty Tea	Oct 18, 2013
Spoke to Penn's freshman BE students about career paths, & work-life balance	Sept 19, 2013

COMMUNITY EVENTS:

<i>Motor Brewing Company</i>	Oct 10, 2018	Chicago, IL
Westtown: Shoemaker Lecture		April 17-18, 2016
And taught 5 middle and high school classes about network neuroscience		
Engaging Minds, New York, NY		December, 2015
Art-Science Classroom Outreach Event at Huey School in West Philadelphia		November, 2015
Neuroscience Public Lecture, Philadelphia, PA		November, 2015
Included Art Gallery and Hands-on Demos		
Art-Science Classroom Outreach Event at Huey School in West Philadelphia		September, 2015
Featured in NY Magazine <i>Nautilus</i> by cartoonist Lauren R. Weinstein		September, 2015
Keynote Speaker at "Science as a Human Endeavor"		September, 2015
Lantern Theatre, Philadelphia, PA		
Speaker at World Café Live in Philadelphia, PA		July, 2015
Speaker at TedXPenn		April, 2015
Segment on Knowledge@Wharton		September, 2014
Segment on public radio station WHYY's <i>The Pulse</i>		September, 2014
Segment on NPR (National Public Radio)		September, 2014
Hosted Penn Network Visualization Art and Science Gallery		August, 2014

PROFESSIONAL DEVELOPMENT

Penn Faculty Pathways Program	2014-2016
-------------------------------	-----------