Danielle S. Bassett, PhD

Prepared 8/27/2015

Skirkanich Assistant Professor of Innovation
Department of Bioengineering
University of Pennsylvania
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ACADEMIC EMPLOYMENT:

The University of Pennsylvania — Philadelphia, PA
Tenure-Track Assistant Professor — Fall 13 - present
Department of Bioengineering

The University of California Santa Barbara — Santa Barbara, CA
Sage Junior Research Fellow — Fall 11 – Fall 13
Departments of Physics & Psychological and Brain Sciences
Sage Center Director: Michael S. Gazzaniga

The University of California Santa Barbara — Santa Barbara, CA
Postdoctoral Research Associate — Fall 09 – Fall 11
Department of Physics
Institute for Collaborative Biotechnologies
Supervisor: Prof. Jean Carlson

EDUCATION:

The University of Cambridge (UoC), King's College — Cambridge, UK
PhD in Physics (awarded July 2009) — Fall 05 – Fall 09
Advisors: Dr. Thomas Duke (UoC), Dr. Ed Bullmore (UoC),
Dr. Andreas Meyer-Lindenberg (NIMH)
Funded by the NIH-University of Cambridge Health Science Scholarship

The University of Cambridge (UoC), Churchill College — Cambridge, UK
Certificate in Postgraduate Studies in Physics (CPGS) — Fall 04 – Fall 05
Funded by Winston Churchill Scholarship and
the NIH-University of Cambridge Health Science Scholarship

The Pennsylvania State University - Schreyer Honors College — State College, PA
Graduated With Distinction — Spring 2001-
Honors B.S. in Physics, Minor in Mathematics — May 2004
Honors in Physical Chemistry of Synthetic Cells

The Reading Hospital School of Nursing — Reading, PA
Completed 1.5/3 years towards R.N. degree — Fall 1999 -
Estimated GPA >3.9/4.0 — Fall 2000

CURRENT FUNDING: ($$ in direct per year)

1. CPNF Subcontract #APX02-0006 (Bassett) 05/29/14 – 05/28/16 2.0 calendar
Army Research Laboratory via DCS Corporation $154,584
Distinguishing Brain States and Resolving State Transitions

2. BR2014-094 (Bassett) 09/15/14 – 09/15/16 1.0 calendar
Sloan Foundation Fellowship $50,000
Dynamic Network Neuroscience

3. R01-DC009209 PI: Sharon Thompson 06/01/14 – 05/31/19 0.50 calendar
National Institute of Health $18,566 to Bassett
Linguistic and Nonlinguistic Functions of Frontal Cortex

4. BCS – 1441502 (Bassett) 05/15/14 – 10/31/15 0.5 summer
National Science Foundation $59,281 Unfunded Effort
WORKSHOP: Quantitative Theories of Learning, Memory, and Prediction

5. BCS – 1430087 (Bassett) 09/01/14 – 08/31/17 1.0 summer
National Science Foundation $79,794
CRCNS: Collaborative Research: Mapping and Control of Large-Scale Neural Dynamics

6. P50-CA179546 TCORS PI: Falk 09/18/13 – 08/31/18 0.5 calendar
National Institute of Health $50,000
Neural predictors of exposure effects in tobacco graphic warning image: A dynamic network neuroscience Approach

7. W911NF-14-1-0679 (Bassett) 10/01/14 - 09/30/17 1.0 calendar
Army Research Office $129,964
Dynamic network neuroscience of adaptation.

8. R01-MH107235 PI: Gur 08/01/15 – 05/31/18 0.60 calendar
National Institute of Health $47,514
Multimodal brain maturation indices modulating psychopathology and neurocognition

8. Young Investigator Program (Bassett) 08/01/15 – 07/31/18 1.3 calendar
Office of Naval Research $106,250
Cognitive Computations: A Network Perspective

9. R01-MH107703 (Satterthwaite) 07/01/15 – 06/30/19 1 calendar
National Institutes of Health $50,000 to Bassett
Longitudinal multi-modal neuroimaging of irritability in youth.

AWARDS AND ACHIEVEMENTS:

ACADEMIC ACHIEVMENT AWARDS:

Named ONR Young Investigator	April, 2015
IEEE EMBS Academic Early Career Achievement Award	April, 2015
Named MacArthur Fellow	Sept, 2014
Named Alfred P. Sloan Research Fellow	Jan, 2014
Named 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

POSTDOCTORAL AWARDS:

Travel Grant Award SIAM UQ2012	April, 2012
Daryl & Marguerite Errett Discovery Award in Biomedical Research $49,000 towards research costs	May, 2011
Sage Junior Research Fellowship 2-year stipend and research costs	March, 2011
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

GRADUATE FELLOWSHIPS:

NIH-University of Cambridge Health Science Scholarship Fully funded collaborative PhD between the National Institutes of Health, Bethesda, MD, USA and the University of Cambridge, UK	2004-2009
Winston Churchill Scholarship, University of Cambridge, UK	2004-2005
Fulbright Scholarship Awarded for study at the Brain Dynamics Centre, Sydney, Australia (Declined)	2004

UNDERGRADUATE SCHOLARSHIPS AND AWARDS:

The Paul Axt Prize Given to one student each year who displays the passionate commitment to inquiry that promotes high scholarly achievement and the intellectual curiosity and daring that lead to the development and pursuit of wide-ranging interests.	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

AFFILIATIONS:

APS (American Physical Society)
OHBM (Organization for Human Brain Mapping)
SfN (Society for Neuroscience)
SIAM (Society for Industrial and Applied Mathematics)
IEEE EMBS

SOFTWARE PACKAGES:

Contributor to BCT (Brain Connectivity Toolbox), Indiana University (Olaf Sporns)
Producer of Network Community Toolbox, University of Pennsylvania (DS Bassett)

EXPERIENCE:

THESIS COMMITTEE MEMBER:

Harini Eavani (Engineering and Applied Science)	Fall ‘13
Sarah Middleton (Genomics and Computational Biology)	Winter ‘14
Andrew Gifford (Neuroscience)	Winter ‘14
Yunshu Fan (Neuroscience)	Summer ‘14

Marcelo Mattar (Psychology) Summer ‘14
Shi Gu (Applied Mathematics) Summer ‘14
Muzhi Yang (Applied Mathematics) Summer ‘14
Ankit Khambhati (Bioengineering) Fall ‘14
Sijia Zhang (Bioengineering) Spring ‘15
Hoameng Ung (Bioengineering) Summer ‘15
Modupe Alexandra Adegoke (Bioengineering) Summer ‘15

QUALIFICATIONS EXAM COMMITTEE:
Lohith Kini (Bioengineering) Summer ‘14
Long Xie (Bioengineering) Fall ‘14
Hoameng Ung (Bioengineering) Summer ‘14
Modupe Alexandra Adegoke (Bioengineering) Summer ‘14

PRIMARY RESEARCH SUPERVISOR:
Highschool Students:
Caroline Casey (Peddie Highschool) Summer ‘14
Adam Lastowka (Open Connections) Summer ‘14
Soo Jang (Peddie Highschool) Summer ‘15
Sophie Fisher (Agnis Irwin) Summer ‘15
Undergraduate Students:
David Baker (Penn, Electrical and Systems Engineering) Fall ‘13-Sp ‘15
– undergraduate research for credit
Eric Bridgeford (John Hopkins, Bioengineering) Summer ‘14
Luci Chai (Penn, Bioengineering) Summer ‘14
Zitong Zhang (Tsinghua University) Summer ‘14
Alex Kostiuk (Vagelos Scholar) Fall ’14-present
Andrew Maguire (Scholar) Fall ’14-Sp ‘15
Julia Costantini (Bioengineering) Fall ’14-present

Research Assistants:
Felix Siebenhuener: 1 article, 1 book review, 1 book chapter 2011-2012
Graduate Students:
Emily Hyman (Electrical and Systems Engineering) Winter ‘14
- Independent study
Shi Gu (Applied Mathematics and Computational Science) Fall ’13-present
– independent study followed by graduate research
Muzhi Yang (Applied Mathematics and Computational Science) Fall ’13-present
– independent study followed by graduate research
Ann Sizemore (Bioengineering) Spring ‘15
- Independent Study
Ted Fujimoto (Bioengineering) Spring ‘15
- Independent Study

Postdoctoral Fellows:
Sarah Muldoon, Physicist Winter ‘14
Qawi Telesford, Bioengineer Winter ‘14
Chad Giusti, Mathematician Fall ‘14
John Medaglia, Clinical Neuropsychologist Fall ‘14
Richard Betzel, Psychologist Fall ‘15
Evelyn May Tang, Physicist Fall ‘15
Arian Ashourvan, Psychologist Fall ‘15

Visiting Fellows:
Urs Braun (Central Institute of Mental Health, Mannheim, Germany) Winter ‘14

SECONDARY RESEARCH SUPERVISOR:

Marcelo Mattar (Psychology; with Sharon Thompson-Schill, Geoffrey Aguirre) 2013-present
Manuscript in Revision at PLoS Comp Biol

Ankit Khambhati (Bioengineering; with Brian Litt) 2013-present
Manuscript in Revision at PLoS Comp Biol

Christian Lohse, Undergraduate Research Experience 2012-2013
Published in PloS CB

Florian Klimm, Undergraduate Research Experience 2012-2013
Published in PLoS Comp Biol

Undergraduate Thesis: Mary-Ellen Lynall, University of Cambridge 2009
Title: "Functional Connectivity and Brain Networks in Schizophrenia"
Published in J Neurosci

Master's Thesis: Lorena Deuker, University Konstanz, Dept of Psychology 2008-2009
Title: "Reproducibility of Graph Metrics in MEG"
Published in Neuroimage

TEACHING:

ENM 375 Fundamentals of Biostatistics Fall '15
Dept of Bioengineering, Undergraduate Sophmore-level course

BE 566 Network Neuroscience Fall '14
Dept of Bioengineering. 20 graduate students and 4 undergraduate students
From 4 departments and 3 schools
Instructor rating: 3.76/4.

Independent Study Course in Social Information Transmission Spring '14
Dept of Electrical and Systems Engineering
Graduate Student: Emily Hyman

Independent Study Course in Network Dynamics Fall '13
Dept of Bioengineering and Graduate Group in Applied Mathematics
Graduate Student: Shi Gu

Independent Study Course in Network Geometry Fall '13
Dept of Bioengineering and Graduate Group in Applied Mathematics
Graduate Student: Muzhi Yang

Independent Study Course in Algebraic Topology Spring '15
Dept of Bioengineering
Masters Student: Ann Sizemore

Independent Study Course in Network Growth Models Fall '15-present
Dept of Biochemistry
Undergraduate Student: Andrew Maguire

Co-Developed and Co-Taught UCSB Graduate Course Spring '12,'13
On Interdisciplinary Methods in Brain Sciences

Supervisor of Physics 1A for the University of Cambridge 2005-2009
Clare, Kings and Churchill Colleges

Laboratory Teaching Assistant 2002-2004
Pennsylvania State University

Tutor for undergraduate math and physics 2000-2002
Pennsylvania State University

INDUSTRY PLACEMENT:

GlaxoSmithKline, Cambridge. Study #TMT110737; PI Odile Dewit. 2008-2009

UNDERGRADUATE RESEARCH:

Biomaterials and Bionanotechnology Summer Institute (NSF, NIH Awards) State College, PA
Research Title: Metal Ion Partitioning in Giant Vesicles Summer 2003

Bucknell University (NSF Research Experience for Undergraduates Award) Lewisburg, PA
Research Title: Physical Modeling of Nerve Impulses Summer 2002

CLINICAL EXPERIENCE:

Morning Star Orthopedics	Elverson, PA
Medical Secretary and Patient Care	Summer 2000
The Reading Hospital and Medical Center	Reading, PA
Unit Support Worker in Patient Care	Feb-June 2000

INVITED LECTURES & PRESENTATIONS:

Future:

NecSys	Sept 10, 2015	Philadelphia, PA
New Jersey Institute of Technology	Sept 25, 2015	Newark, NJ
Cell Symposia: Engineering the Brain	October 15, 2015	Chicago, IL
SfN Symposium: Brain Stimulation Based Neural Circuits Modeling	October 16, 2015	Chicago, IL
University of Chicago	October 22, 2015	Chicago, IL
The Quadrangle	November 11, 2015	Haverford, PA
University of Florida - IEEE-EMBS Distinguished Early Career Lecture	Nov 30, 2015	Gainesville, FL
Amer. Epilepsy Society Merritt-Putnam Symposium	Dec 5, 2015	Philadelphia, PA
Yale Institute for Network Science	Dec 16, 2015	New Haven, CT
Rice University Bioengineering Department	Jan 19, 2016	Houston, TX
Weill Cornell Medical College	Feb 18, 2016	New York, NY
3rd Biennial Whistler Workshop on Brain Function	Mar 6, 2016	Whistler BC, Canada
Washington University Physics Colloquium	Mar 30, 2016	St Louis, MI
British Applied Mathematics Conference: Plenary	April 6, 2016	Oxford, UK
Royal Society: Applying Computational Modelling to Clinical Neuroscience	April 7, 2016	London, UK
MBI: Workshop on Control and Observability of Network Dynamics	April 11, 2016	Chicago, IL
Westtown: Shoemaker Lecture	April 17, 2016	West Chester, PA
National Institutes of Health	May 6, 2016	Bethesda, MD
University of Chicago	May 18, 2016	Chicago, IL
IEEE-EMBS: Plenary	August 16, 2016	Orlando, FL
Bernstein Conference	Sept 21, 2016	Berlin, Germany
EPFL Life Science Colloquium	Sept 23, 2016	Switzerland

Past:

Janelia	August 24, 2015	Ashburn, VA
IEEE Philadelphia Chapter	August 10, 2015	Philadelphia, PA
MidAtlantic Soft Materials, University of Maryland	July 29, 2015	College Park, MD
GNSI at Arcadia University	July 8, 2015	Glenside, PA
Max Planck Institute Due to conflict, given by postdoc Sarah Muldoon	July 7, 2015	Dresden, Germany
American Control Conference	July 1, 2015	Chicago, IL
Summer Institute in Cognitive Neuroscience	June 25, 2015	Santa Barbara, CA
ISMRM Due to conflict, given by postdoc John Medaglia	May 31, 2015	Toronto, Ontario
Organization for Human Brain Mapping Due to conflict, given by postdoc Sarah Muldoon	June 14, 2015	Honolulu, Hawai
Organization for Human Brain Mapping	June 18, 2015	Honolulu, Hawai

Due to conflict, given by co-author Ted Satterthwaite		
Bryn Mawr	June 8, 2015	Bryn Mawr, PA
Defects, Deformations, and Diagnosis (PICSL)	May 28, 2015	Philadelphia, PA
New York University	May 12, 2015	New York, NY
SIAM NetSci – Invited Talk	May 16, 2015	Snowbird, UT
SIAM NetSci	May 17, 2015	Snowbird, UT
Institute for Advanced Study	April 18, 2015	Princeton, NJ
International Symposium on Biomedical Imaging	April 16, 2015	New York, NY
Dartmouth College, Thayer School of Engineering	April 2, 2015	Hanover, NH
Philadelphia Neurological Society:	Feb 19, 2015	Philadelphia, PA
NSF SBE Fall Advisory Committee Meeting	October 31, 2014	Alexandria, VA
Indiana University Bloomington	Sept 8, 2014	Bloomington, IN
University of Pennsylvania - IRCS Seminar	Sept 19, 2014	Philadelphia, PA
Bernstein Center for Computational Neuroscience	Jun 11, 2014	Berlin, Germany
NetSci – Satellite Workshop	Jun 3, 2014	Berkeley, CA
2014 (SIB) & Vision Sciences TGs Retreat	Jun 4, 2014	Philadelphia, PA
NSF Workshop on QTLMD	May 9, 2014	Arlington, VA
University of Pennsylvania	April 24, 2014	Philadelphia, PA
University of Pennsylvania - MINS	April 2, 2014	Philadelphia, PA
Cold Spring Harbor Laboratory	April 6, 2014	CSH, NY
CoSyne - Discovering Structure in Neural Data	March 4, 2014	Snowbird, UT
Rochester Institute of Technology	Feb 20, 2014	Rochester, NY
College of Science, Distinguished Speaker		
Northwestern University	Dec 4, 2013	Chicago, IL
Moss Rehabilitation Research Institute	Dec 11, 2013	Philadelphia, PA
Society for Neuroscience	Nov 11, 2013	San Diego, CA
Society for Neuroscience	Nov 13, 2013	San Diego, CA
Army Research Laboratory	Nov 4, 2013	Potomac, MD
Princeton University	Nov 1, 2013	Princeton, NJ
Florida Atlantic University	Oct 8, 2013	Boca Raton, FL
Syracuse University	Sept 27, 2013	Syracuse, NY
Lieber Institute	Sept 25, 2013	Baltimore, MD
University of Pennsylvania	Sept 24, 2013	Philadelphia, PA
John Hopkins University	Sept 4, 2013	Baltimore, MD
Oxford University	July 9, 2013	Oxford, UK
SIAM: Applications of Dynamical Systems	May 20, 2013	Snowbird, UT
Sage JRF Workshop	April 22, 2013	Santa Barbara, CA
Princeton University: Physics Seminar	March 8, 2013	Princeton, NJ
Stonybrook University: Laufer Center Seminar	March 7, 2013	Stony brook, NY
University of California Irvine: Physics Seminar	Feb 25, 2013	Irvine, CA
University of Pennsylvania: ESE & BE Colloquium	Feb 21, 2013	Philadelphia, PA
Penn State University: Physics Colloquium	Feb 19, 2013	University Park, PA
Princeton University: PACM & MAE Seminar	Feb 15, 2013	Princeton, NJ
Carnegie Mellon University: Bioengineering	Feb 12, 2013	Pittsburgh, PA
Ohio State University: Computer Science	Feb 7, 2013	Columbus, OH
Emory: Physics Colloquium	Jan 28, 2013	Atlanta, GA
UNC: Applied Mathematics Colloquium	Jan 24, 2013	Chapel Hill, NC
Harvard: WAM Seminar	Jan 22, 2013	Boston, MA
University of Oregon: Mathematics and Biology	Jan 15, 2013	Eugene, OR
University of Michigan: CSCS	Nov 27, 2012	Ann Arbor, MI
University of North Carolina Chapel Hill	Nov 9, 2012	Raleigh, NC
Cornell: Applied Math Colloquium	Sept 7, 2012	Ithaca, NY
Institute for the Applications of Mathematics	June 21, 2012	Riverside, CA
Center for Imaging of Neurodegenerative Diseases	June 2, 2012	San Francisco, CA
UCSB Physics Colloquium	May 29, 2012	Santa Barbara, CA
Penn State Physics Department Special Seminar	March 29, 2012	University Park, PA

UCSB Mechanical Engineering Seminar	March 14, 2012	Santa Barbara, CA
Cornell University: Biomedical Imaging	March 7, 2012	Manhattan, NY
Yale: Swartz Program in Theoretical Neurobiology	Oct 28, 2011	New Haven, CT
Virginia Tech Physics Colloquium	Sept 12, 2011	Blacksburg, VA
KITP Mini-Program	August 3, 2011	Santa Barbara, CA
University of Glasgow	June 10, 2011	Glasgow, UK
University of Minnesota CNR Colloquium	March 22, 2011	Minneapolis, MN
University of Minnesota CMRR Colloquium	March 21, 2011	Minneapolis, MN
International Imaging Genetics Conference	January 17, 2011	UC Irvine, CA
Virginia Tech Physics Colloquium	January 14, 2011	Blacksburg, VA
Virginia Tech Carilion Institute Colloquium	January 13, 2011	Roanoke, VA
SAMSI Dynamics of Networks Workshop	January 10, 2011	Raleigh, NC
INFORMS	Nov 8, 2010	Austin, TX
INFORMS	Nov 10, 2010	Austin, TX
Neuroimaging Tech for Optimizing Performance	Sept 24, 2010	Alexandria, VA
Brain Connectivity Workshop 2010	June 2, 2010	Berlin, Germany

Teaching Presentations

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

CONFERENCE PRESENTATIONS:

SfN 2012 — New Orleans, LA
Poster: "Temporal Dynamics of Putative Functional Modules During Learning" — Oct 15, 2012

OHBM Workshop on Brain Graphs — Beijing, China
Dynamic Network Organization in the Human Brain
Presented by Scott T. Grafton. — June 12, 2012

Cognitive Neuroscience Meeting — Chicago, IL
Poster: "Dynamic reconfiguration of human brain networks During learning" — April 1, 2012

American Physical Society March Meeting — Boston, MA
Talk on "Influence of Topology on Signal Propagation in Granular Force Networks" — Feb 28, 2012

International Congress on Schizophrenia Research — Colorado Springs, CO
Invited Talk: "Multiscale statistical analysis of resting state BOLD time series in schizophrenia" — April 4, 2011
Presented by: Kelvin O. Lim

Society for Neuroscience — San Diego, CA
Poster: "Dynamic network reconfiguration of human brain networks during learning" — Nov 15, 2010
Presented by: Nick Wymbs

SAMSI Workshop on Complex Networks — Research Triangle Park, NC

Presented Poster: "Time-dependent Network Architecture of Human Brain Function" — August 31, 2010

Human Brain Mapping — Barcelona, Spain
Presented Poster: "Conserved and variable architecture" — June 9, 2010

Human Brain Mapping — San Francisco, CA
Presented Poster: "Cost-efficiency in informational systems" — June 18, 2009

Society for Neuroscience — San Diego, CA
Invited Talk: "Hierarchical organization of the human multimodal cortical network and its perturbation by schizophrenia" — Nov 4, 2007

Human Brain Mapping — Chicago, IL
Presented Poster: "Topological Dynamics of Synchronized and Syncopated Finger Tapping" — June 14, 2007

Coordination Dynamics — Boca Raton, FL
Presented Poster: "Topological Dynamics of Synchronized and Syncopated Finger Tapping" — Feb 23, 2007

Society for Neuroscience — Atlanta, GA
Presented Poster: "Global, Local, and State-Related Properties of Small-world Human Brain Networks Using MEG" — Oct 14, 2006

Brain Complexity — Hinxton, UK
Presented Poster: "Global, Local, and State-Related Properties of Small-world Human Brain Networks Using MEG" — Sept 27, 2006

NIH Cambridge/Oxford Colloquium — Oxford, UK
Invited Talk: "Global, Local, and State-Related Properties of Small-world Human Brain Networks Using MEG" — June 22, 2006

NIH Cambridge/Oxford Colloquium — Bethesda, MD
Presented Poster: "Wavelet and Graph Theoretic Analysis of Human MEG Images" — 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. Pheonix, 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. Pheonix, 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.

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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.

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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 Wikelstein. 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.

PEER REVIEW PROCESS:

Proposal Review Panels: NSF CAREER Panel (2014), NSF Brain Initiative Panel (2015), NSF CISE Panel (2015)

Reviewer for 34 journals: American Journal of Psychiatry, Behavioral Brain Research, Biological Psychiatry, Brain, Brain Structure and Function, Cerebral Cortex, Clinical NeuroImage, 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)

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

Associate Editor: IEEE Journal on Translational Engineering in Health and Medicine

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

PUBLICATIONS:

(h-Index of 26, >5500 citations; http://scholar.google.com/citations?hl=en&user=siYpAPsAAAAJ)

Submitted (11)

Zitong Zhang, Qawi K. Telesford, Chad Giusti, Kelvin O. Lim, **Danielle S. Bassett**. Choosing Wavelet Methods, Filters, and Lengths for Functional Brain Network Construction. Submitted.

Sarah Feldt Muldoon & **Danielle S. Bassett**. Network and multilayer network approaches to understanding human brain dynamics. Submitted.

Sarah Feldt Muldoon, Eric W. Bridgeford, **Danielle S. Bassett**. Small-world propensity in real-world weighted networks. Submitted.

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. Submitted.

Michael W. Cole, **Danielle S. Bassett**, Doug Schultz. Brain activations are shaped by activity flow through both intrinsic and task-evoked functional networks. Submitted.

Shi Gu, Theodore Satterthwaite, John Medaglia, Muzhi Yang, Raquel Gur, Ruben Gur, **Danielle S. Bassett.** Emergence of System Roles in Normative Neurodevelopment. Submitted.

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. Submitted.

Fabian Soto, **Danielle S. Bassett**, F. Gregory Ashby. Dissociable changes in functional network topology underlie early category learning and development of automaticity. Submitted. To appear on arXiv shortly.

Ankit Khambhati, Brian Litt, **Danielle S. Bassett**. Dynamic network drivers of seizure generation, propagation and termination in human epilepsy. Submitted. arXiv 1407.5105.

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. arXiv 1407.5590.

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. Submitted to Biological Psychiatry.

Post-publication: (61)

Journal Articles:

2015

Marcelo Mattar, Michael W. Cole, Sharon Thompson-Schill, **Danielle S. Bassett**. A Functional Cartography of Cognitive Systems. PLoS Comp Biol. Accepted.

Urs Braun, Axel Schaefer, Henrik Walter, Susanne Erk, Nina Romanczuk-Seiferth, 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. In Press.

Shi Gu, Fabio Pasqualetti, Matthew Cieslak, Scott T. Grafton, **Danielle S. Bassett**. Controllability of Structural Brain Networks. Nature Communications. In Press.

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

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].

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

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.

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 Mar 25;11(14):2731-44.

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

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

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.

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.

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.

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.

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.

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.

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.

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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.

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.

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.

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.

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.

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

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

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

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.

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.

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.

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

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.

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.

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.

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

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.

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

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

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

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

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

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

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.

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 Siebenhuhner. 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.

3Sarah 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.

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.

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. \

OUTREACH & SERVICE

EXTERNAL ACADEMIC SERVICE:

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:

Graduate Admissions Committee for Bioengineering at Penn	2013-2014
Graduate Admissions Committee for Applied Mathematics & Comp Sci at Penn	2014-2015
Blue Sky Committee, SEAS at Penn	2015
Data and Computational Science Strategic Planning at Penn	2015
Applied Mathematics & Computational Science Executive Committee	2015

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:

Spoke to Penn's freshman BE students about career paths, & work-life balance	Sept 19, 2013
Participated in Penn's Advancing Women in Engineering Faculty Tea	Oct 18, 2013
Participated in Penn's Highschool Shadowing Day as co-advisor of the Society For Women Engineers	Oct 21, 2013
Spoke at Penn's CCN Workshop on the Faculty Job Search	Nov 18, 2014
Spoke to underrepresented minorities (McNair Fellows at Depaul University)	Dec 4, 2013
Spoke to Penn's BE graduate students about career path and research	Jan 13, 2014

Spoke to homeschooled high school students at Open Connections	Jan 14, 2014
Spoke at Penn Career Services's "Faculty Conversations: Preparing For Campus Interviews For Academic Jobs – Science, Mathematics And Engineering"	Feb 6, 2014
Spoke at RIT about career paths to students who had not yet selected a major	Feb 20, 2014
Spoke at Bayonne NJ Public Highschool about career path and research	March 18, 2014
Spoke at Penn's SEAS Faculty Interview Process Workshop	March 21, 2014
Spoke at Penn Children's Center to 18-36 month olds about neuroscience	May 6, 2014
Spoke at Penn's STSS on Network Science	July 10, 2014
Participated in Penn's NGG Student-Faculty Lunch	July 9, 2014
Spoke at Women in Computer Science Residential: Dinner Discussion	Oct 17, 2014
Ran Art of Network Visualization workshop at GABE BETA Day	January 30, 2015
Spoke at Penn's GABE Academia Career Panel	March 23, 2015
Spoke at Harnwell College House	April 9, 2015
Spoke at Penn Children's Center to 3-5 yr olds about neuroscience	April 10, 2015
Ran 4 workshops at Penn SWE's GEARS day for highschool girls	April 11, 2015
Gave guest lecture in BE 558 Principles of Biological Fabrication	April 23, 2015

COMMUNITY EVENTS:

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 *The Pulse*	September, 2014
Segment on NPR (National Public Radio)	September, 2014
Hosted Penn Network Visualization Art and Science Gallery	August, 2014