## **Richard Cameron Craddock**

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Prepared November 10, 2016

# **Education**

### PhD in Electrical and Computer Engineering

05/2003 - 12/2009

Georgia Institute of Technology, Atlanta, GA

Dissertation: Support Vector Classification Analysis of Resting State Functional Connectivity fMRI

Specializations: MR Physics, Bioengineering, and Digital Signal Processing

Minor: Mathematics

Advisors: Xiaoping Hu, PhD and Helen Mayberg, MD

## MS in Electrical and Computer Engineering

01/2001 - 05/2003

Georgia Institute of Technology, Atlanta, GA

Specializations: Bioengineering and Digital Signal Processing

Minor: Mathematics Advisor: Linda Wills, PhD

### **Bachelor of Computer Engineering**

06/1995 - 08/1999

Georgia Institute of Technology, Atlanta, GA

Specializations: Telecommunications and Digital Signal Processing

# **Experience**

### **Research Professor** (courtesy appointment)

05/2016 - present

Department of Computer Science and Engineering, NYU Tandon School of Engineering, Brooklyn, NY

#### **Director, Computational Neuroimaging Lab**

08/2014 - present

Center for Biomedical Imaging and Neuromodulation,

Nathan S. Kline Institute for Psychiatric Research, Orangeburg, NY

## **Director of Imaging**

07/2012 – present

Center for the Developing Brain and the Healthy Brain Network, Child Mind Institute, Inc., New York, NY

#### Research Scientist VI

07/2012 - 11/2015

Research Foundation for Mental Health, Inc.,

Nathan S. Kline Institute for Psychiatric Research, Orangeburg, NY

#### **Postdoctoral Associate**

10/2010 - 06/2012

Virginia Tech Carilion Research Institute, Roanoke, VA

Supervisor: Stephen M. LaConte, PhD

**Research Associate** 10/2009 – 10/2010

Computational Psychiatry Unit, Department of Neuroscience, Baylor College of Medicine, Houston, TX *Supervisor:* Stephen M. LaConte, PhD

#### **Supervising Research Specialist**

01/2007 - 10/2009

Department of Psychiatry and Behavioral Sciences, Emory University School of Medicine, Atlanta, GA *Supervisors:* Helen Mayberg, MD and Paul Holtzheimer, MD

**Guest Researcher** 06/2004 – 01/2007

Centers for Disease Control and Prevention, Atlanta, GA Supervisors: Brian Gurbaxani, PhD and Suzanne Vernon, PhD

**Research Assistant** 11/2001 – 05/2004

School of Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta, GA Supervisor: Linda Wills, PhD

Engineer 01/2000 – 09/2001

Opuswave Networks Inc., Colorado Springs, CO

**Junior Systems Engineer** 08/1998 – 12/1998

Lucent Technologies Product Realization Center, Atlanta, GA

**Stokes Undergraduate Scholar** 

08/1995 - 12/1999

Central Intelligence Agency, Washington DC

# **Active Grant Support**

1R01MH101555: Real-time fMRI Neurofeedback Based Stratification of Default Network Regulation

Principle Investigator: R. Cameron Craddock, PhD

Funding Source: National Institute of Mental Health BRAINS Award

Support Period: 08/2013 – 08/2017 Funding Amount: \$400,000 USD per year

# **Previous Grant Support**

1R01MH101555-S1: Real-time fMRI Neurofeedback Based Stratification of Default Network Regulation

Principle Investigator: R. Cameron Craddock, PhD

Funding Source: National Institute of Mental Health Competitive Supplement

Support Period: 07/2015 – 05/2016 Funding Amount: \$104,117 USD C-PAC integration with the National Database for Autism Research (NDAR)

Principle Investigator: R. Cameron Craddock, PhD

Funding Source: National Institute of Mental Health Subcontract

Support Period: 02/2014 – 07/2014 Funding Amount: \$75,000 USD

Neuro-Feedback for Default Mode Network Regulation in Major Depressive Disorder

Principle Investigator: R. Cameron Craddock, PhD

Mentors: Stephen LaConte, PhD and Helen Mayberg, MD

Funding Source: The Brain and Behavior Research Fund NARSAD Young Investigator Award

Support Period: 01/2011 – 01/2013 Funding Amount: \$60,000 USD

# **Open Science**

[Open Source] Configurable Pipeline for the Analysis of Connectomes

A python-based open source software package for performing connectivity analyses using functional MRI data on high-performance computing architectures.

Address: http://fcp-indi.github.io

Role: Project Director, Co-Principal Investigator

## [Open Source] OpenCogLab Repository

Repository of free and open source implementations of computerized experiments for assessing human cognition.

Address: http://opencoglabrepository.github.io/

Role: Principle Investigator, Contributor

#### [Open Source] pyClusterROI

An open source python library for parcellating functional MRI data using spatially constrained normalized-cut spectral clustering.

Address: http://ccraddock.github.io/cluster roi

Role: Primary Developer

### [Open Source] The Preprocessed Connectomes Project Quality Assessment Protocol

An open source python library for estimating several different quality measures from functional and structural MRI data.

Address: http://preprocessed-connectomes-project.github.io/quality-assessment-protocol/

Role: Principle Investigator, Developer

## [Data Sharing] The Enhanced Rockland Sample Neurofeedback Study Dataset

A neuroimaging database of 180 adults (21–45 years old, 50% female) with a variety of clinical and subclinical psychiatric symptoms performing a variety of tasks for assessing the default mode network.

Address: http://fcon 1000.projects.nitrc.org/indi/enhanced/

Role: Principle Investigator

#### [Data Sharing] Intrinsic Brain Activity Test-Retest Dataset

This dataset consists of two ten-minute resting state fMRI scans and two multi source interference task fMRI scans acquired during the same scanning session for thirty-six adults (20–48 years old). 14 of the participants returned for a second scanning session using the same scanning procedures.

Address: http://fcon 1000.projects.nitrc.org/indi/CoRR/html/ibatrt.html

Role: Contributor

#### [Data Sharing] The Enhanced Rockland Sample Dataset

A database of deep phenotyping and a comprehensive connectome neuroimaging assessment on individuals with a variety of clinical and sub-clinical psychiatric symptoms from across the lifespan.

Address: http://fcon 1000.projects.nitrc.org/indi/enhanced/

Role: Co-Investigator and Contributor

### [Data Sharing] ADHD-200 Preprocessed Data

Preprocessed functional and structural data for 374 children and adolescents who suffer from ADHD and 598 typically developing controls from the ADHD-200 sample. Data was processed using three different software pipelines.

Address: http://neurobureau.projects.nitrc.org/ADHD200/Introduction.html

Role: Co-Principle Investigator, Contributor

#### [Data Sharing] ABIDE Preprocessed Data

Preprocessed functional and structural data for 539 individuals suffering from autism and 573 typical controls from the ABIDE dataset. Data was processed using four different functional processing pipelines and three different structural processing pipelines.

Address: http://preprocessed-connectomes-project.github.io/abide/

Role: Co-Principle Investigator, Contributor

#### [Data Sharing] The Neurofeedback Skull-stripped (NFBS) repository

A database of 125 manually skull-stripped T1-weighted anatomical MRI scans from the the Enhanced Rockland Sample Neurofeedback Study.

Address: http://preprocessed-connectomes-project.org/NFB\_skullstripped/index.html

Role: Principle Investigator, Contributor

#### **Patents**

European Patent 11188849.1 – 1560 US Patent 20,130,144,154 11/11/11

06/13

Inventors: R. Cameron Craddock, Yating Lv, Daniel Margulies, Arno Villringer

*Title:* Method and apparatus for visualization of tissue perfusion by means of assessing BOLD signal fluctuations

# **Journal Publications**

[1] T. Xu, A. Opitz, **R. C. Craddock**, M. J. Wright, X. N. Zuo, and M. P. Milham. Assessing Variations in Areal Organization for the Intrinsic Brain: From Fingerprints to Reliability. *Cereb. Cortex*, Sep 2016. [DOI:10.1093/cercor/bhw241] [PMID:27600846] [Preprint].

- [2] P. Bellec, C. Chu, F. Chouinard-Decorte, Y. Benhajali, D. S. Margulies, and R. C. Craddock. The Neuro Bureau ADHD-200 Preprocessed repository. *Neuroimage*, Jul 2016. [DOI:10.1016/j.neuroimage.2016.06.034] [PMID:27423255][Data Sharing] [Open Access] [Preprint].
- [3] Nicholas T. Van Dam, David O'Connor, Enitan T. Marcelle, Erica J. Ho, R. Cameron Craddock, Russell H. Tobe, Vilma Gabbay, James J. Hudziak, F. Xavier Castellanos, Bennett L. Leventhal, and Michael P. Milham. Data-driven phenotypic categorization for neurobiological analyses: Beyond DSM-5 labels. *Biological Psychiatry*, jul 2016. [DOI:10.1016/j.biopsych.2016.06.027] [PMID:27667698] [Open Access] [Preprint].
- [4] A. Opitz, M. D. Fox, R. C. Craddock, S. Colcombe, and M. P. Milham. An integrated framework for targeting functional networks via transcranial magnetic stimulation. *Neuroimage*, 127:86–96, Feb 2016. [DOI:10.1016/j.neuroimage.2015.11.040] [PMID:26608241].
- [5] Alexandre Abraham, Michael Milham, Adriana Di Martino, **R. Cameron Craddock**, Dimitris Samaras, Bertrand Thirion, and Gaël Varoquaux. Deriving robust biomarkers from multi-site resting-state data: An autism-based example. *NeuroImage*, 2016. *in press*. [Preprint].
- [6] Daniel Clark, Krzysztof J Gorgolewski, and R. Cameron Craddock. Integrating the Brain Imaging Data Structure (BIDS) standard into C-PAC. In R. Cameron Craddock, Pierre Bellec, Daniel S. Margules, B. Nolan Nichols, and Jörg P. Pfannmöller, editors, 2015 Brainhack Proceedings. GigaScience Journal, 2016. [DOI:10.1186/s13742-016-0147-0] [Open Source].
- [7] R. C. Craddock, Daniel S. Margulies, Pierre Bellec, B. Nolan Nichols, Sarael Alcauter, Fernando A. Barrios, Yves Burnod, Christopher J. Cannistraci, Julien Cohen-Adad, Benjamin De Leener, Sebastien Dery, Jonathan Downar, Katharine Dunlop, Alexandre R. Franco, Caroline Seligman Froehlich, Andrew J. Gerber, Satrajit S. Ghosh, Thomas J. Grabowski, Sean Hill, Anibal Sólon Heinsfeld, R. Matthew Hutchison, Prantik Kundu, Angela R. Laird, Sook-Lei Liew, Daniel J. Lurie, Donald G. McLaren, Felipe Meneguzzi, Maarten Mennes, Salma Mesmoudi, David O'Connor, Erick H. Pasaye, Scott Peltier, Jean-Baptiste Poline, Gautam Prasad, Ramon Fraga Pereira, Pierre-Olivier Quirion, Ariel Rokem, Ziad S. Saad, Yonggang Shi, Stephen C. Strother, Roberto Toro, Lucina Q. Uddin, John D. Van Horn, John W. Van Meter, Robert C. Welsh, and Ting Xu. Brainhack: a collaborative workshop for the open neuroscience community. *GigaScience*, 5(1):1–8, 2016. [DOI:10.1186/s13742-016-0121-x] [PMID:27042293] [Open Access].
- [8] R. Cameron Craddock and Daniel J Clark. Optimized implementations of voxel-wise degree centrality and local functional connectivity density mapping in AFNI. In R. Cameron Craddock, Pierre Bellec, Daniel S. Margules, B. Nolan Nichols, and Jörg P. Pfannmöller, editors, 2015 Brainhack Proceedings. GigaScience Journal, 2016. [DOI:10.1186/s13742-016-0147-0] [Open Source] [Preprint].
- [9] Caroline Froehlich, Gil Dekel, Daniel S Margulies, and **R. Cameron Craddock**. Generating music with resting-state fmri data. In R. Cameron Craddock, Pierre Bellec, Daniel S. Margules, B. Nolan Nichols, and Jörg P. Pfannmöller, editors, *2015 Brainhack Proceedings*. GigaScience Journal, 2016. [DOI:10.1186/s13742-016-0147-0] [Open Source].
- [10] K. J. Gorgolewski, T. Auer, V. D. Calhoun, R. C. Craddock, S. Das, E. P. Duff, G. Flandin, S. S. Ghosh, T. Glatard, Y. O. Halchenko, D. A. Handwerker, M. Hanke, D. Keator, X. Li, Z. Michael, C. Maumet, B. N. Nichols, T. E. Nichols, J. Pellman, J. B. Poline, A. Rokem, G. Schaefer, V. Sochat, W. Triplett, J. A. Turner, G. Varoquaux, and R. A. Poldrack. The brain imaging data structure, a format for organizing and describing outputs of neuroimaging experiments. *Sci Data*,

- 3:16–44, 2016. [DOI:10.1016/j.neuroimage.2015.11.040] [PMID:27326542] [Open Access] [Preprint].
- [11] Franziskus Liem, Gaël Varoquaux, Jana Kynast, Frauke Beyer, Shahrzad Kharabian Masouleh, Julia M Huntenburg, Leonie Lampe, Mehdi Rahim, Alexandre Abraham, **R. Cameron Craddock**, Steffi Riedel-Heller, Tobias Luck, Markus Loeffler, Matthias L Schroeter, Anja Veronica Witte, Arno Villringer, and Daniel S Margulies. Predicting brain-age from multimodal imaging data captures cognitive impairment. *NeuroImage*, 2016. *in press.* [Preprint].
- [12] Amalia R McDonald, Jordan Muraskin, Nicholas T Van Dam, Caroline Froehlich, Benjamin Puccio, John Pellman, Clemens CC Bauer, Alexis Akeyson, Melissa M Breland, Vince D Calhoun, Steven Carter, Tiffany P Chang, Chelsea Gessner, Alyssa Gianonne, Steven Giavasis, Jamie Glass, Steven Homan, Margaret King, Melissa Kramer, Drew Landis, Alexis Lieval, Jonathan Lisinski, Anna Mackay-Brandt, Brittny Miller, Laura Panek, Hayley Reed, Christine Santiago, Eszter Schoell, Richard Sinnig, Melissa Sital, Elise Taverna, Russell Tobe, Kristin Trautman, Betty Varghese, Lauren Walden, Runtang Wang, Abigail B Waters, Dylan Wood, F Xavier Castellanos, Bennett Leventhal, Stanley J Colcombe, Stephen LaConte, Michael P Milham, and R.
  Cameron Craddock. The real-time fmri neurofeedback based stratification of default network regulation neuroimaging data repository. NeuroImage, pages –, 2016.
  [DOI:10.1016/j.neuroimage.2016.10.048] [Data Sharing] [Preprint].
- [13] David O'Connor, Daniel J Clark, Michael P Milham, and **R. Cameron Craddock**. Sharing data in the cloud. In R. Cameron Craddock, Pierre Bellec, Daniel S. Margules, B. Nolan Nichols, and Jörg P. Pfannmöller, editors, *2015 Brainhack Proceedings*. GigaScience Journal, 2016. [DOI:10.1186/s13742-016-0147-0] [Data Sharing].
- [14] Benjamin Puccio, James P. Pooley, John S. Pellman, Elise C. Taverna, and R. Cameron Craddock. The preprocessed connectomes project repository of manually corrected skull-stripped T1-weighted anatomical mri data. *GigaScience*, 5(1):45, 2016. [DOI:10.1186/s13742-016-0150-5] [PMID:27782853] [Data Sharing] [Open Access] [Preprint].
- [15] Zhi Yang, Xi-Nian Zuo, Katie L. McMahon, R. Cameron Craddock, Clare Kelly, Greig I. de Zubicaray, Ian Hickie, Peter A. Bandettini, F. Xavier Castellanos, Michael P. Milham, and Margaret J. Wright. Genetic and environmental contributions to functional connectivity architecture of the human brain. Cerebral Cortex, 26(5):2341–2352, 2016. [DOI:10.1093/cercor/bhw027] [PMID:26891986] [Open Access].
- [16] P. Bellec, Y. Benhajali, F. Carbonell, C. Dansereau, G. Albouy, M. Pelland, C. Craddock, O. Collignon, J. Doyon, E. Stip, and P. Orban. Impact of the resolution of brain parcels on connectome-wide association studies in fMRI. *Neuroimage*, 123:212–228, Dec 2015. [DOI:10.1016/j.neuroimage.2015.07.071] [PMID:26241681] [Open Access].
- [17] T. D. Satterthwaite, S. N. Vandekar, D. H. Wolf, D. S. Bassett, K. Ruparel, Z. Shehzad, R. C. Craddock, R. T. Shinohara, T. M. Moore, E. D. Gennatas, C. Jackson, D. R. Roalf, M. P. Milham, M. E. Calkins, H. Hakonarson, R. C. Gur, and R. E. Gur. Connectome-wide network analysis of youth with Psychosis-Spectrum symptoms. *Mol. Psychiatry*, 20(12):1508–1515, Dec 2015. [DOI:10.1038/mp.2015.66] [PMID:26033240] [Open Access].
- [18] K. Somandepalli, C. Kelly, P. T. Reiss, X. N. Zuo, R. C. Craddock, C. G. Yan, E. Petkova, F. X. Castellanos, M. P. Milham, and A. Di Martino. Short-term test-retest reliability of resting state fMRI metrics in children with and without attention-deficit/hyperactivity disorder. *Dev Cogn Neurosci*, 15:83–93, Oct 2015. [DOI:10.1016/j.dcn.2015.08.003] [PMID:26365788] [Open Access].

- [19] Z. Yang, D. R. Jutagir, M. S. Koyama, R. C. Craddock, C. G. Yan, Z. Shehzad, F. X. Castellanos, A. Di Martino, and M. P. Milham. Intrinsic brain indices of verbal working memory capacity in children and adolescents. *Dev Cogn Neurosci*, 15:67–82, Oct 2015. [DOI:10.1016/j.dcn.2015.07.007] [PMID:26299314] [Open Access].
- [20] **R. Cameron Craddock**, Rosalia L Tungaraza, and Michael P Milham. Connectomics and new approaches for analyzing human brain functional connectivity. *GigaScience*, 4(1):13, March 2015. [DOI:10.1186/s13742-015-0045-x] [PMID:25810900] [Open Access].
- [21] Gonzalo M Rojas, Marcelo Gálvez, Natan Vega Potler, R. Cameron Craddock, Daniel S Margulies, F Xavier Castellanos, and Michael P Milham. Stereoscopic three-dimensional visualization applied to multimodal brain images: Clinical applications and a functional connectivity atlas. Frontiers in Neuroscience, 8(328), Oct 2014. [DOI:10.3389/fnins.2014.00328] [Open Access].
- [22] A. Di Martino, D. A. Fair, C. Kelly, T. D. Satterthwaite, F. X. Castellanos, M. E. Thomason, R. C. Craddock, B. Luna, B. L. Leventhal, X. N. Zuo, and M. P. Milham. Unraveling the Miswired Connectome: A Developmental Perspective. *Neuron*, 83(6):1335–1353, Sep 2014. [DOI:10.1016/j.neuron.2014.08.050] [PMID:25233316] [Open Access].
- [23] Z. Shehzad, C. Kelly, P. T. Reiss, **R. Cameron Craddock**, J. W. Emerson, K. McMahon, D. A. Copland, F. X. Castellanos, and M. P. Milham. A multivariate distance-based analytic framework for connectome-wide association studies. *NeuroImage*, 93 Pt 1:74–94, Jun 2014. [DOI:10.1016/j.neuroimage.2014.02.024] [PMID:24583255] [Open Access] [Open Source].
- [24] Z. Yang, R. C. Craddock, D. S. Margulies, C. G. Yan, and M. P. Milham. Common intrinsic connectivity states among posteromedial cortex subdivisions: Insights from analysis of temporal dynamics. *NeuroImage*, 93 Pt 1:124–137, Jun 2014. [DOI:10.1016/j.neuroimage.2014.02.014] [PMID:24560717] [Open Access].
- [25] C. Eierud, **R. C. Craddock**, S. Fletcher, M. Aulakh, B. King-Casas, D. Kuehl, and S. M. LaConte. Neuroimaging after mild traumatic brain injury: Review and meta-analysis. *NeuroImage: Clinical*, 4:283–294, 2014. [DOI:10.1016/j.nicl.2013.12.009] [PMID:25061565] [Open Access].
- [26] K. J. Gorgolewski, D. Lurie, S. Urchs, J. A. Kipping, R. C. Craddock, M. P. Milham, D. S. Margulies, and J. Smallwood. A correspondence between individual differences in the brain's intrinsic functional architecture and the content and form of self-generated thoughts. *PLoS ONE*, 9(5):e97176, 2014. [DOI:10.1371/journal.pone.0097176] [PMID:24824880] [Open Access].
- [27] L. E. Stoeckel, K. A. Garrison, S. Ghosh, P. Wighton, C. A. Hanlon, J. M. Gilman, S. Greer, N. B. Turk-Browne, M. T. deBettencourt, D. Scheinost, R. C. Craddock, T. Thompson, V. Calderon, C. C. Bauer, M. George, H. C. Breiter, S. Whitfield-Gabrieli, J. D. Gabrieli, S. M. LaConte, L. Hirshberg, J. A. Brewer, M. Hampson, A. Van Der Kouwe, S. Mackey, and A. E. Evins. Optimizing real time fMRI neurofeedback for therapeutic discovery and development. NeuroImage: Clinical, 5:245–255, 2014. [DOI:10.1016/j.nicl.2014.07.002] [PMID:25161891] [Open Access].
- [28] Zhen Yang, R. Cameron Craddock, and Michael P. Milham. Impact of hematocrit on measurements of the intrinsic brain. Frontiers in Neuroscience, 8(452), 2014. [DOI:10.3389/fnins.2014.00452] [PMID:25653582] [Open Access].
- [29] Xi-Nian Zuo, Jeffrey S Anderson, Pierre Bellec, Rasmus M Birn, Bharat B Biswal, Janusch Blautzik, John C. S Breitner, Randy L Buckner, Vince D Calhoun, F. Xavier Castellanos, Antao Chen, Bing Chen, Jiangtao Chen, Xu Chen, Stanley J Colcombe, William Courtney, R. Cameron Craddock, Adriana Di Martino, Hao-Ming Dong, Xiaolan Fu, Qiyong Gong, Krzysztof J

- Gorgolewski, Ying Han, Ye He, Yong He, Erica Ho, Avram Holmes, Xiao-Hui Hou, Jeremy Huckins, Tianzi Jiang, Yi Jiang, William Kelley, Clare Kelly, Margaret King, Stephen M LaConte, Janet E Lainhart, Xu Lei, Hui-Jie Li, Kaiming Li, Kuncheng Li, Qixiang Lin, Dongqiang Liu, Jia Liu, Xun Liu, Yijun Liu, Guangming Lu, Jie Lu, Beatriz Luna, Jing Luo, Daniel Lurie, Ying Mao, Daniel S Margulies, Andrew R Mayer, Thomas Meindl, Mary E Meyerand, Weizhi Nan, Jared A Nielsen, David O'Connor, David Paulsen, Vivek Prabhakaran, Zhigang Qi, Jiang Qiu, Chunhong Shao, Zarrar Shehzad, Weijun Tang, Arno Villringer, Huiling Wang, Kai Wang, Dongtao Wei, Gao-Xia Wei, Xu-Chu Weng, Xuehai Wu, Ting Xu, Ning Yang, Zhi Yang, Yu-Feng Zang, Lei Zhang, Qinglin Zhang, Zhe Zhang, Zhiqiang Zhang, Ke Zhao, Zonglei Zhen, Yuan Zhou, Xing-Ting Zhu, and Michael P Milham. An open science resource for establishing reliability and reproducibility in functional connectomics. *Scientific Data*, 1:140049, 12 2014. [DOI:10.1038/sdata.2014.49] [PMID:25977800] [Data Sharing][Open Access].
- [30] **R. Cameron Craddock**, Michael P. Milham, and Stephen M. LaConte. Predicting intrinsic brain activity. *NeuroImage*, 82:127–136, Nov 2013. [DOI:10.1016/j.neuroimage.2013.05.072] [PMID:23707580].
- [31] F. Xavier Castellanos, Adriana Di Martino, **R. Cameron Craddock**, Ashesh D. Mehta, and Michael P. Milham. Clinical applications of the functional connectome. *NeuroImage*, 80:527–540, Oct 2013. [DOI:10.1016/j.neuroimage.2013.04.083] [PMID:23631991] [Open Access].
- [32] Gaël Varoquaux and **R. Cameron Craddock**. Learning and comparing functional connectomes across subjects. *NeuroImage*, 80:405–415, Oct 2013. [DOI:10.1016/j.neuroimage.2013.04.007] [PMID:23583357] [Open Access].
- [33] Chao-Gan Yan, **R. Cameron Craddock**, Xi-Nian Zuo, Yue-Feng Zang, and Michael P. Milham. Standardizing the intrinsic brain: towards robust measurement of inter-individual variation in 1000 functional connectomes. *NeuroImage*, 80:246–262, Oct 2013. [DOI:10.1016/j.neuroimage.2013.04.081] [PMID:23631983] [Open Access].
- [34] Callie L. McGrath, Mary E. Kelley, Paul E. Holtzheimer III, Boadie W. Dunlop, W. Edward Craighead, Alexandre R. Franco, **R. Cameron Craddock**, and Helen S. Mayberg. Toward a neuroimaging treatment selection biomarker for major depressive disorder. *JAMA Psychiatry*, 70(8):821–829, Aug 2013. [DOI:10.1001/jamapsychiatry.2013.143] [PMID:23760393] [Open Access].
- [35] C. G. Yan, B. Cheung, C. Kelly, S. Colcombe, R. C. Craddock, A. Di Martino, Q. Li, X. N. Zuo, F. X. Castellanos, and M. P. Milham. A comprehensive assessment of regional variation in the impact of head micromovements on functional connectomics. *NeuroImage*, 76:183–201, Aug 2013. [DOI:10.1016/j.neuroimage.2013.03.004] [PMID:23499792] [Open Access].
- [36] **R. Cameron Craddock**, Saad Jbabdi, Chao-Gan Yan, Joshua Vogelstein, F. Xavier Castellanos, Adriana Di Martino, Clare Kelly, Keith Heberlein, Stan Colcombe, and Michael P. Milham. Imaging human connectomes at the macroscale. *Nature Methods*, 10(6):524–539, Jun 2013. [DOI:10.1038/nmeth.2482] [PMID:23722212] [Open Access].
- [37] C. J. Keller, S. Bickel, C. J. Honey, D. M. Groppe, L. Entz, R. C. Craddock, F. A. Lado, C. Kelly, M. Milham, and A. D. Mehta. Neurophysiological investigation of spontaneous correlated and anticorrelated fluctuations of the BOLD signal. *Journal of Neuroscience*, 33(15):6333–6342, Apr 2013. [DOI:10.1523/JNEUROSCI.4837-12.2013] [PMID:23575832] [Open Access].
- [38] Yating Lv, Daniel S. Margulies, **R. Cameron Craddock**, Xiangyu Long, Benjamin Winter, Daniel Gierhake, Matthias Endres, Kersten Villringer, Jochen Fiebach, and Arno Villringer. Identifying the

- perfusion deficit in acute stroke with resting-state functional magnetic resonance imaging. *Annals of Neurology*, 73(1):136–140, Jan 2013. [DOI:10.1002/ana.23763] [PMID:23378326].
- [39] Christiane S. Rohr, Hadas Okon-Singer, R. Cameron Craddock, Arno Villringer, and Daniel S. Margulies. Affect and the brain's functional organization: a resting-state connectivity approach. PLoS ONE, 8(7):e68015, 2013. [DOI:10.1371/journal.pone.0068015] [PMID:23935850] [Open Access].
- [40] Chao-Gan Yan, R. Cameron Craddock, Yong He, and Michael P. Milham. Addressing head motion dependencies for small-world topologies in functional connectomics. *Frontiers in Human Neurosci*, 7:910, 2013. [DOI:10.3389/fnhum.2013.00910] [PMID:24421764] [Open Access].
- [41] **R. Cameron Craddock**, G. Andrew James, Paul E. Holtzheimer, Xiaoping P. Hu, and Helen S. Mayberg. A whole brain fMRI atlas generated via spatially constrained spectral clustering. *Human Brain Mapping*, 33(8):1914–1928, Aug 2012. [DOI:10.1002/hbm.21333] [PMID:21769991] [Open Access] [Open Source].
- [42] C. Kelly, B. B. Biswal, R. C. Craddock, F. X. Castellanos, and M. P. Milham. Characterizing variation in the functional connectome: promise and pitfalls. *Trends in Cognitive Science (Regular Edition)*, 16(3):181–188, Mar 2012. [DOI:10.1016/j.tics.2012.02.001] [PMID:22341211] [Open Access].
- [43] S. Lavoie-Courchesne, P. Rioux, F. Chouinard-Decorte, T. Sherif, M.-E. Rousseau, S. Das, R. Adalat, J. Doyon, R. C. Craddock, D. Margulies, O. Lyttelton C. Chu, A. C. Evans, and P. Bellec. Integration of a neuroimaging processing pipeline into a pan-canadian computing grid. *Journal of Physics: Conference Series*, 341(1), 2012. [doi:10.1088/1742-6596/341/1/012032] [Open Access].
- [44] Kate Brody Nooner, Stanley J. Colcombe, Russell H. Tobe, Maarten Mennes, Melissa M. Benedict, Alexis L. Moreno, Laura J. Panek, Shaquanna Brown, Stephen T. Zavitz, Qingyang Li, Sharad Sikka, David Gutman, Saroja Bangaru, Rochelle Tziona Schlachter, Stephanie M. Kamiel, Ayesha R. Anwar, Caitlin M. Hinz, Michelle S. Kaplan, Anna B. Rachlin, Samantha Adelsberg, Brian Cheung, Ranjit Khanuja, Chaogan Yan, R. Cameron Craddock, Vincent Calhoun, William Courtney, Margaret King, Dylan Wood, Christine L. Cox, A. M. Clare Kelly, Dawn Thomsen, Bharat Biswal, Barbara Coffey, Matthew J. Hoptman, Daniel C. Javitt, Nunzio Pomara, John J. Sidtis, Harold S. Koplewicz, Francisco Xavier Castellanos, Bennet L. Leventhal, and Michael P. Milham. The NKI-Rockland Sample: A Model for Accelerating the Pace of Discovery Science in Psychiatry. Frontiers in Neuroscience, 6:152, 2012. [DOI:10.3389/fnins.2012.00152] [PMID:23087608] [Open Access].
- [45] Christopher B. Glielmi, Qin Xu, **R. Cameron Craddock**, and Xioaping P. Hu. Simultaneous acquisition of gradient echo/spin echo BOLD and perfusion with a separate labeling coil. *Magnetic Resonance in Medicine*, 64(6):1827–1831, Dec 2010. [DOI:10.1002/mrm.22554] [PMID:20648682] [Open Access].
- [46] **R. Cameron Craddock**, Paul E. Holtzheimer, Xiaoping P. Hu, and Helen S. Mayberg. Disease state prediction from resting state functional connectivity. *Magnetic Resonance in Medicine*, 62(6):1619–1628, Dec 2009. [DOI:10.1002/mrm.22159] [PMID:19859933] [Open Access].
- [47] G. Andrew James, Mary E Kelley, R. Cameron Craddock, Paul E Holtzheimer, Boadie W Dunlop, Charles B Nemeroff, Helen S Mayberg, and Xiaoping P Hu. Exploratory structural equation modeling of resting-state fMRI: applicability of group models to individual subjects. *NeuroImage*, 45(3):778–787, Apr 2009. [DOI:10.1016/j.neuroimage.2008.12.049] [PMID:19162206] [Open Access].

- [48] Andres M. Lozano, Helen S. Mayberg, Peter Giacobbe, Clement Hamani, R. Cameron Craddock, and Sydney H Kennedy. Subcallosal cingulate gyrus deep brain stimulation for treatment-resistant depression. *Biological Psychiatry*, 64(6):461–467, Sep 2008. [DOI:10.1016/j.biopsych.2008.05.034] [PMID:18639234] [Open Access].
- [49] Lucile Capuron, Leonie Welberg, Christine Heim, Dieter Wagner, Laura Solomon, Dimitris A. Papanicolaou, R. Cameron Craddock, Andrew H Miller, and William C. Reeves. Cognitive dysfunction relates to subjective report of mental fatigue in patients with chronic fatigue syndrome. Neuropsychopharmacology, 31(8):1777–1784, Aug 2006. [DOI:10.1038/sj.npp.1301005] [PMID:16395303] [Open Access].
- [50] Gordon Broderick, R. Cameron Craddock, Toni Whistler, Renee Taylor, Nancy Klimas, and Elizabeth R Unger. Identifying illness parameters in fatiguing syndromes using classical projection methods. *Pharmacogenomics*, 7(3):407–419, Apr 2006. [DOI:10.2217/14622416.7.3.407] [PMID:16610951].
- [51] **R. Cameron Craddock**, Renee Taylor, Gordon Broderick, Toni Whistler, Nancy Klimas, and Elizabeth R Unger. Exploration of statistical dependence between illness parameters using the entropy correlation coefficient. *Pharmacogenomics*, 7(3):421–428, Apr 2006. [DOI:10.2217/14622416.7.3.421] [PMID:16610952].
- [52] Toni Whistler, Renee Taylor, **R. Cameron Craddock**, Gordon Broderick, Nancy Klimas, and Elizabeth R. Unger. Gene expression correlates of unexplained fatigue. *Pharmacogenomics*, 7(3):395–405, Apr 2006. [DOI:10.2217/14622416.7.3.395] [PMID:16610950].

# **Invited Talks**

- [1] **R. Cameron Craddock**. Computational approaches for mapping the human connectome. In *PUCRS Department of Computer Science Speaker Series*, Porto Alegre, Brazil, 2016. [Slides].
- [2] **R. Cameron Craddock**. Impact of motion on resting state fmri and functional connectivity. In *Proceedings Organization of Human Brain Mapping 22nd Annual Meeting*, Geneva, Switzerland, 2016. [Slides].
- [3] **R. Cameron Craddock**. The Preprocessed Connectomes Project Quality Assessment Protocol. In 2016 The University of Alabama at Birmingham Visual Brain Core Seminar Series, Birmingham, Alabama, 2016. [Slides].
- [4] **R. Cameron Craddock**. Tracking dynamic networks in real time. In *Proceedings of the 3<sup>rd</sup> Whistler Scientfic Workshop: Brain Functional Organization, Connectivity, and Behavior*, Whistler-Blackcomb, British Columbia, Canada, 2016. [Slides].
- [5] R. Cameron Craddock. Using realtime fmri based neurofeedback to probe default network regulation. In *University of Illinois at Chicago Behavioral Neuroscience Seminar Series*, Chicago, Illinois, 2016. [Slides].
- [6] R. Cameron Craddock and Daniel S. Margulies. Pimp My Brain: A Crash Course in DIY Brainhacking. In Proceedings of 2016 South by Southwest (SXSW) Interactive Festival, Austin, Texas, 2016.
- [7] **R. Cameron Craddock**. Analyzing Connectomes in the Cloud. In *Brainhacking educational* course, *Proceedings Organization of Human Brain Mapping 21*<sup>st</sup> *Annual Meeting*, Honolulu, Hawaii, 2015. [Slides].

- [8] R. Cameron Craddock. Open science resources for addressing 'big data' challenges in psychiatric neuroimaging. In *Neuroimaging and Informatics Institute Seminar, Fall 2015*, Los Angeles, California, 2015. [Slides].
- [9] **R. Cameron Craddock**. Open science resources for analyzing brain connectivity. In *OHBM Hackathon, Proceedings Organization of Human Brain Mapping 21<sup>st</sup> Annual Meeting*, Honolulu, Hawaii, 2015.
- [10] R. Cameron Craddock. The Preprocessed Connectomes Project Quality Assessment Protocol a resource for measuring the quality of MRI data. In *Neuroinformatics* 2015, Cairns, Australia, 2015.
- [11] **R. Cameron Craddock**. Using realtime fmri based neurofeedback to probe default network regulation. In *Proceedings of the 62<sup>nd</sup> Annual Meeting of the American Academy of Child and Adolescent Psychiatry*, San Antonio, Texas, 2015.
- [12] **R. Cameron Craddock**. Using real-time fmri based neurofeedback to probe default network regulation. In *Pioneering Frontiers in Functional Brain Imaging for Psychiatry Symposium, Society of Biomedical Psychiatry 69th Annual Meeting*, New York, NY, 2014.
- [13] **R. Cameron Craddock**. Using realtime fmri based neurofeedback to probe default network regulation. In *Yale University Magnetic Resonance Research Center fMRI Speaker Series*, New Haven, Connecticut, 2014.
- [14] **R. Cameron Craddock**. The configurable pipeline for the analysis of connectomes. In Neuroimaging "Big Data" Challenges and Computational Workflow Solutions Educational Workshop, Proceedings Organization of Human Brain Mapping 19th Annual Meeting, Seattle, 2013.
- [15] R. Cameron Craddock. The Neuro Bureau Preprocessing Initiative: open sharing of preprocessed neuroimaging data and derivatives. In *Neuroinformatics 2013*, Stockholm, Sweden, 2013.
- [16] **R. Cameron Craddock**. The current state of resting state literature. In *The systematic and automated analysis of the large functional brain databases of papers*, Paris, France, 2012.
- [17] **R. Cameron Craddock**. Tracking resting state networks in real time. In *Educational Workshop*, *Proceedings Organization of Human Brain Mapping 18th Annual Meeting*, Beijing, 2012.
- [18] **R. Cameron Craddock**, Jonathan M. Lisinski, Pearl Chiu, Helen S. Mayberg, and Stephen M. LaConte. Real-time tracking and biofeedback of the default mode network. In *Proceedings Organization of Human Brain Mapping 18th Annual Meeting*, Beijing, 2012.
- [19] R. Cameron Craddock, Jonathan M. Lisinski, and Stephen LaConte. Online denoising strategies for real-time tracking default mode network activity. In *Proceedings Third Biennial International Conference on Resting-State Functional Connectivity*, Magdeburg, Germany, 2012.
- [20] R. Cameron Craddock. Applications of mvpa to the analysis of resting state fmri data: Disease state prediction, brain state prediction, and real-time fmri. In *Max Planck Institute*, Leipzig, Germany, 2010.
- [21] **R. Cameron Craddock**. Applications of mvpa to the analysis of resting state fmri data: Disease state prediction, brain state prediction, and real-time fmri. In *Otto von Guericke University*, Magdeburg, Germany, 2010.

- [22] **R. Cameron Craddock**. Applications of mvpa to the analysis of resting state fmri data: Disease state prediction, brain state prediction, and real-time fmri. In *University of Modena and Reggio Emilia*, Modena, Italy, 2010.
- [23] **R. Cameron Craddock**. Applications of mvpa to the analysis of resting state fmri data: Disease state prediction, brain state prediction, and real-time fmri. In *Brain Imaging Series Lecture, Center for Advanced Brain Imaging*, Atlanta, GA, 2010.
- [24] **R. Cameron Craddock**. Applying mvpa to fmri. In *New York University Child Study Center*, New York, NY, 2010.
- [25] **R. Cameron Craddock** and Daniel S. Margulies. What is the neuro bureau? In *Proceedings Second Biennial International Conference on Resting State Connectivity*, Milwaukee, MI, 2010.
- [26] **R. Cameron Craddock**, Paul E. Holtzheimer, Xiaoping P. Hu, and Helen S. Mayberg. Disease state prediction from resting state fmri. In *Proceedings OHBM 15th Annual Meeting*, San Francisco, CA, 2009.
- [27] **R. Cameron Craddock**. Computing for public health. In *Intel Opportunities Scholars Program, Georgia Institute of Technology*, Atlanta, GA, 2006.
- [28] **R. Cameron Craddock**, Brian M. Gurbaxani, and Suzanne D. Vernon. Evaluation of single channel oligonucleotide preprocessing pipelines using predictability and reproducibility. In *BioInfoSummer*, Canberra, AU, 2006.
- [29] **R. Cameron Craddock**, Renee Taylor, Gordon Broderick, Toni Whistler, Nancy Klimas, and Elizabeth R. Unger. Exploration of statistical dependence between illness parameters using the entropy correlation coefficient. In *CFS Computation Challenge, Banbury Conference Center, Cold Springs Harbor Lab*, Cold Spring Harbor, NY, 2006.
- [30] **R. Cameron Craddock**. Computing in biology. In *Intel Opportunity Scholars Program, Georgia Institute of Technology*, Atlanta, GA, 2005.

# **Conference Abstracts**

- [1] Daniel Clark, Christian Haselgrove, David Kennedy, Zhizhong Liu, Michael Milham, Petros Petrosyan, Carinna Torgerson, John Van Horn, and **R. Cameron Craddock**. Harnessing clound computing for high capacity analysis of neuroimaging data from NDAR. In *Proceedings Organization of Human Brain Mapping 21<sup>st</sup> Annual Meeting, Honolulu, Hawaii*, Honolulu, Hawaii, 2015.
- [2] Daniel Clark, Christian Haselgrove, David N Kennedy, Zhizhong Liu, Michael Milham, Petros Petrosyan, Carinna Torgerson, John Van Horn, and **R. Cameron Craddock**. Harnessing cloud computing for high capacity analysis of neuroimaging data from NDAR. *Frontiers in Neuroscience*, (21), 2015.
- [3] Stan Colcombe, Michael Milham, Anna MacKay-Brandt, **R. Cameron Craddock**, Phillip Reiss, and Rong Jiao. Leveraging t2\* properties of functional MRI to image iron; you can do it too! In *Proceedings Organization of Human Brain Mapping 21st Annual Meeting, Honolulu, Hawaii*, Honolulu, Hawaii, 2015.
- [4] **R. Cameron Craddock**. The Preprocessed Connectomes Project Quality Assessment Protocol a resource for measuring the quality of MRI data. *Frontiers in Neuroscience*, (47), 2015.

- [5] Krzysztof Jacek Gorgolewski, Jean-Baptiste Poline, David B Keator, B Nolan Nichols, Tibor Auer, R. Cameron Craddock, Guillaume Flandin, Satrajit S Ghosh, Vanessa V Sochat, Ariel Rokem, Yaroslav O Halchenko, Michael Hanke, Christian Haselgrove, Karl Helmer, Camille Maumet, Thomas E. Nichols, Jessica A Turner, Samir Das, David N Kennedy, and Russell A Poldrack. Brain Imaging Data Structure a new standard for describing and organizing human neuroimaging data. Frontiers in Neuroscience, (56), 2015.
- [6] David B Keator, Jean-Baptiste Poline, B Nolan Nichols, Satrajit S Ghosh, Camille Maumet, Krzysztof Jacek Gorgolewski, Tibor Auer, R. Cameron Craddock, Gang Chen, Guillaume Flandin, Yaroslav O Halchenko, Michael Hanke, Christian Haselgrove, Karl Helmer, Mark Jenkinson, Arno Klein, Linda Lanyon, Daniel Marcus, Daniel Margulies, Frank Michel, Thomas E. Nichols, Russell A Poldrack, Richard Reynolds, Ziad Saad, Tanya Schmah, Jason Steffener, Jessica A Turner, John Darrell Van Horn, Samir Das, and David N Kennedy. Standardizing metadata in brain imaging. Frontiers in Neuroscience, (4), 2015.
- [7] Gregory Kiar, William Gray Roncal, Eric Bridgeford, Disa Mhembere, Anthony Kolasny, Daniel Clark, Michael Milham, **R. Cameron Craddock**, and Joshua Vogelstein. Community Connectomics via Cloud Computing. In *Proceedings Organization of Human Brain Mapping 21<sup>st</sup> Annual Meeting, Honolulu, Hawaii*, Honolulu, Hawaii, 2015.
- [8] Nicolas Langer, Enitan Marcelle, Erica Ho, R. Cameron Craddock, Kenneth Schuster, Michael Milham, and Simon Kelly. A mult-modal approach to deconstructing a standard clinical measure of processing speed. In *Proceedings Organization of Human Brain Mapping 21<sup>st</sup> Annual Meeting, Honolulu, Hawaii*, Honolulu, Hawaii, 2015.
- [9] Alexander Opitz, Micheal Fox, **R. Cameron Craddock**, Stan Colcombe, and Micheal Milham. Targeting functional networks with TMS. In *Proceedings Organization of Human Brain Mapping 21<sup>st</sup> Annual Meeting, Honolulu, Hawaii*, Honolulu, Hawaii, 2015.
- [10] Giueseppe Pagnoni, Jonathan Lisinski, **R. Cameron Craddock**, and Stephen LaConte. Tracking Resting State Networks in real-time to control experimental events and task performance. In *Proceedings Organization of Human Brain Mapping 21<sup>st</sup> Annual Meeting, Honolulu, Hawaii*, Honolulu, Hawaii, 2015.
- [11] Jean Baptiste Poline, Samir Das, David Keator, Krzysztof Gorgolewski, Tibor Auer, Gang Chen, **R. Cameron Craddock**, Guillaume Flandin, Satrajit Ghosh, Yaroslav Halchenko, Michael Hanke, Christian Haselgrove, Karl Helmer, Mark Jenkinson, Arno Klein, Daniel Marcus, Daniel Margulies, Camille Maumet, Franck Michel, Nolan Nichols, Thomas Nichols, Russell Poldrack, Richard Reynolds, Ziad S Saad, Tanya Schmah, Jason Steffener, Jessica Turner, Theo van Erp, John Van Horn, and David Kennedy. How to make brain imaging research efficient and reproducible: building software and standards. In *Proceedings Organization of Human Brain Mapping 21st Annual Meeting, Honolulu, Hawaii*, Honolulu, Hawaii, 2015.
- [12] Theodore Satterthwaite, Simon Vandekar, Danielle Bassett, Daniel Wolf, Kosha Ruparel, Zarrar Shehzad, Tyler Moore, **R. Cameron Craddock**, Russell Shiohara, Mark Elliot, Monica Calkins, Michael Milham, Ruben Gur, and Raquel Gur. Connectome-wide association study reveals dysconnectivity in youth with psychosis-spectrum symptoms (oral presentation). In *Proceedings Organization of Human Brain Mapping 21<sup>st</sup> Annual Meeting, Honolulu, Hawaii*, Honolulu, Hawaii, 2015.
- [13] Zarrar Shehzad, Steven Giavasis, Qingyang Li, Yassine Benhajali, Chaogan Yan, Zhen Yang, Michael Milham, Pierre Bellec, and **R. Cameron Craddock**. The Preprocessed Connectomes

- Project Quality Assessment Protocol a resource for measuring the quality of mri data. *Frontiers in Neuroscience*, (47), 2015.
- [14] Shangsi Wang, Zhi Yang, Michael Milham, **R. Cameron Craddock**, Xi-Nian Zuo, Carey Priebe, and Joshua Vogelstein. Optimal experimental design for generating reference connectome datasets. In *Proceedings Organization of Human Brain Mapping 21<sup>st</sup> Annual Meeting, Honolulu, Hawaii*, Honolulu, Hawaii, 2015.
- [15] Ting Xu, Alexander Opitz, R. Cameron Craddock, Xi-Nian Zuo, and Michael Milham. Facing the artificial effects of surface-based computation in resting-state fMRI study. In *Proceedings* Organization of Human Brain Mapping 21<sup>st</sup> Annual Meeting, Honolulu, Hawaii, Honolulu, Hawaii, 2015.
- [16] Chao-Gan Yan, Stan Colcombe, Zhen Yang, **R. Cameron Craddock**, Charles Schroeder, Francisco Castellanos, and Michael Milham. Facing the artificial effects of surface-based computation in resting-state fMRI study. In *Proceedings Organization of Human Brain Mapping 21st Annual Meeting, Honolulu, Hawaii*, Honolulu, Hawaii, 2015.
- [17] David Keator, Satrajit Ghosh, Camille Maumet, Guillaume Flandin, Nolan Nichols, Thomas Nichols, Gully Burns, Rüdiger Brüehl, R. Cameron Craddock, Blaise Frederick, Krzysztof Gorgolewski, Daniel Marcus, Michael Hanke, Christian Haselgrove, Karl Helmer, Arno Klein, Michael Milham, Russell Poldrack, Franck Michel, Jason Steffener, Yannick Schwartz, Rich Stoner, Jessica Turner, David Kennedy, and Jean-Baptiste Poline. Developing and using the neuroimaging and data sharing data model: the nidash working group. In Proceedings Organization of Human Brain Mapping 20<sup>th</sup> Annual Meeting, Hamburg, Germany, Hamburg, Germany, 2014.
- [18] Adriana Di Martino, Krishna Somandepalli, **R. Cameron Craddock**, and Michael P. Milham. An emerging paradigm for examination of autism in early brain development. In *Pioneering Frontiers in Functional Brain Imaging for Psychiatry Symposium, Society of Biomedical Psychiatry 69<sup>th</sup> Annual Meeting, New York, NY, New York, NY, 2014.*
- [19] Chao-Gan YAN, **R. Cameron Craddock**, Yong He, and Michael Milham. Addressing head motion dependencies for small-world topologies in functional connectomics. In *Proceedings Organization of Human Brain Mapping 20<sup>th</sup> Annual Meeting, Hamburg, Germany*, Hamburg, Germany, 2014.
- [20] Zhen Yang, **R. Cameron Craddock**, Chao-Gan YAN, and Michael Milham. Reproducibility, reliability, and relevance of dynamic intrinsic functional connectivity. In *Proceedings Organization of Human Brain Mapping 20<sup>th</sup> Annual Meeting, Hamburg, Germany*, Hamburg, Germany, 2014.
- [21] Zhen Yang, Nathan A. Fox, Carl W. Lejuez, Zarrar Shehzad, Bennett Leventhal, Francisco X. Castellanos, R. Cameron Craddock, and Michael P. Milham. Intrinsic brain indices of distress tolerance identified in life span sample using static and dynamic analyses. In Society of Biomedical Psychiatry 69<sup>th</sup> Annual Meeting, New York, NY, New York, NY, 2014.
- [22] Zhen Yang, Daniel Lurie, David O'Connor, R. Cameron Craddock, and Michael Milham. Impact of hematocrit on measurement of the intrinsic brain. In *Proceedings Organization of Human Brain Mapping 20<sup>th</sup> Annual Meeting, Hamburg, Germany*, Hamburg, Germany, 2014.
- [23] Zhi Yang, Xi-Nian Zuo, Katie McMahon, **R. Cameron Craddock**, Clare Kelly, Greig de Zubicaray, Ian Hickie, Peter Bandettini, F. Xavier Castellanos, Michael Milham, and Margaret Wright. Heritability of intrinsic connectivity network profiles in the human brain. In *Proceedings Organization of Human Brain Mapping 20<sup>th</sup> Annual Meeting, Hamburg, Germany*, Hamburg, Germany, 2014.

- [24] Kaat Alaerts, Kritika Nayar, Jessica Raithe, R. Cameron Craddock, Michael P. Milham, F. Xavier Castellanos, and Adriana Di Martino. Relationship between social impairment and neural measures of functional connectivity in autism. In *Proceedings Organization of Human Brain Mapping 19<sup>th</sup> Annual Meeting, Seattle, WA*, Seattle, 2013.
- [25] **R. Cameron Craddock**, Yassine Benhajali, Carlton Chiu, Francois Chouinard, András Jakab, Qingyang Li, Alan Evans, Budhachandra Khundrakpam, John Lewis, Michael Milham, Chao-Gan YAN, and Pierre Bellec. The Neuro Bureau Preprocessing Initiative: open sharing of preprocessed neuroimaging data and derivatives. In *Proceedings Organization of Human Brain Mapping 19<sup>th</sup> Annual Meeting, Seattle, WA*, Seattle, 2013.
- [26] R. Cameron Craddock, Yassine Benhajali, Carlton Chiu, Francois Chouinard, András Jakab, Qingyang Li, Alan Evans, Budhachandra Khundrakpam, John Lewis, Michael Milham, Chao-Gan YAN, and Pierre Bellec. The Neuro Bureau Preprocessing Initiative: open sharing of preprocessed neuroimaging data and derivatives. In *Neuroinformatics 2013, Stockholm, Sweden*, Stockholm, Sweden, 2013.
- [27] **R. Cameron Craddock**, Sharad Sikka, Brian Cheung, Ranjit Khanuja, Satra Ghosh, Chao-Gan YAN, Qingyang Li, Daniel Lurie, Joshua Vogelstein, Randal Burns, Stan Colcombe, Maarten Mennes, Clare Kelly Adriana Di Martino, F. Xavier Castellanos, and Michael Milham. Towards automated analysis of connectomes: The Configurable Pipeline for the Analysis of Connectomes. In *Proceedings Organization of Human Brain Mapping 19<sup>th</sup> Annual Meeting, Seattle, WA*, Seattle, 2013.
- [28] **R. Cameron Craddock**, Sharad Sikka, Brian Cheung, Ranjit Khanuja, Satra Ghosh, Chao-Gan YAN, Qingyang Li, Daniel Lurie, Joshua Vogelstein, Randal Burns, Stan Colcombe, Maarten Mennes, Clare Kelly Adriana Di Martino, F. Xavier Castellanos, and Michael Milham. Towards automated analysis of connectomes: The Configurable Pipeline for the Analysis of Connectomes. In *Neuroinformatics 2013, Stockholm, Sweden*, Stockholm, Sweden, 2013.
- [29] Cyrus Eierud, **R. Cameron Craddock**, Manek Aulakh, Sean Fletcher, Brooks King-Casas, Damon Kuehl, and Stephen LaConte. Spatially and temporally resolving the changes in white matter in mild traumatic brain injury. In *Proceedings Organization of Human Brain Mapping 19<sup>th</sup> Annual Meeting, Seattle, WA*, Seattle, 2013.
- [30] Anders Eklund, **R. Cameron Craddock**, Cyrus Eierud, Lisinski Jonathan, Brittany Hamilton, Damon Kuehl, and Stephen LaConte. Recovering the balance between dmn and task networks after mild traumatic brain injury. In *Proceedings Organization of Human Brain Mapping 19<sup>th</sup> Annual Meeting, Seattle, WA*, Seattle, 2013.
- [31] Chao-Gan YAN, Brian Cheung, Clare Kelly, Stan Colcombe, **R. Cameron Craddock**, Adriana Di Martino, Qingyang Li, Xi-Nian Zuo, F. Xavier Castellanos, and Michael Milham. Rethinking the origins, impact and handling of head motion effects for functional connectomics. In *Proceedings Organization of Human Brain Mapping 19<sup>th</sup> Annual Meeting, Seattle, WA*, Seattle, 2013.
- [32] Chao-Gan YAN, **R. Cameron Craddock**, Xi-Nian Zuo, Zang Yufeng, and Michael Milham. Standardizing the intrinsic brain: Towards nuisance robust measurement of inter-individual variation. In *Proceedings Organization of Human Brain Mapping 19<sup>th</sup> Annual Meeting, Seattle, WA*, Seattle, 2013.
- [33] Zhen Yang, **R. Cameron Craddock**, Chao-Gan YAN, Sebastian Urchs, and Michael Milham. Characterizing intrinsic connectivity microstates within the posteromedial cortex. In *Proceedings Organization of Human Brain Mapping 19<sup>th</sup> Annual Meeting, Seattle, WA*, Seattle, 2013.

- [34] **R. Cameron Craddock**, Jonathan M. Lisinski, Pearl Chiu, Helen S. Mayberg, and Stephen M. LaConte. Real-time tracking and biofeedback of the default mode network. In *Proceedings Organization of Human Brain Mapping 18<sup>th</sup> Annual Meeting, Beijing*, pages 648, MT, Beijing, 2012.
- [35] **R. Cameron Craddock**, Jonathan M. Lisinski, and Stephen LaConte. Online denoising strategies for real-time tracking default mode network activity. In *Proceedings Third Biennial International Conference on Resting-State Functional Connectivity*, Magdeburg, Germany, 2012.
- [36] **R. Cameron Craddock** and Stephen M. LaConte. Estimation of resting state network activity using multivariate prediction analysis regression (MVPA-R). In *Proceedings 19<sup>th</sup> Scientific Meeting, International Society for Magnetic Resonance in Medicine, Montreal*, 2011. 1<sup>st</sup> Place Functional Imaging Poster Award.
- [37] R. Cameron Craddock, Stephen M. LaConte, F. Xavier Castellanos, Xi-Nian Zuo, Paul Thompson, Greig de Zubicaray, Katie McMahon, Ian Hickie, Nicholas Martin, Margaret Wright, and Michael Milham. Genetics influence inter-subject brain state prediction. In *Proceedings* Organization of Human Brain Mapping 17<sup>th</sup> Annual Meeting, Quebec City, pages 462, F–PM, Quebec City, 2011.
- [38] Alexandre Franco, Jaemin Shin, Ki Sueng Choi, **Richard Craddock**, Helen Mayberg, and Xiaoping Hu. Increased intra-slice functional correlation: Problem and solution. In *Proceedings Organization of Human Brain Mapping 17<sup>th</sup> Annual Meeting, Quebec City*, pages 640, M, 2011.
- [39] Y. Lv, D. Margulies, **R. Cameron Craddock**, X. Long, C. Rohr, B. Winter, M. Enders, K. Villringer, J. Fiebach, and A. Villringer. Diagnosis of stroke with non-invasive resting-state fmri. In *Proceedings 41<sup>st</sup> annual meeting of the Society for Neuroscience, Washington DC*, 2011.
- [40] Michael Milham, Maarten Mennes, David Gutman, Randy Buckner, **Cameron Craddock**, Daniel Margulies, Yufeng Zang, Bharat Biswal, J.K. Buitelaar, Vince Calhoun, Stan Colcombe, Eliza Congdon, Daniel Dickstein, Damien Fair, Matthew Hoptman, Maria de la Iglesia Vaya, George Andrew James, Rex Jung, Clare Kelly, David Kennedy, Kent Kiehl, Clint Kilts, Art Kramer, Stephen LaConte, Bennet Leventhal, Beatriz Luna, Larry Maayan, David Madden, Luis Martí-Bonmatí, Andrew Mayer, Stewart Mostofsky, Joel Nigg, Kate Nooner, James Pekar, Russell Poldrack, Erika Proal, Julie Schweitzer, Katerina Velanova, Arno Villringer, Xi-Nian Zuo, and F. Xavier Castellanos. The International Neuroimaging Data-sharing Initiative (INDI) and the Functional Connectomes Project. In *Proceedings Organization of Human Brain Mapping 17<sup>th</sup> Annual Meeting, Quebec City*, pages 343, Th, 2011.
- [41] Y. Shah, **R. C. Craddock**, S. M. LaConte, and S. J. Peltier. Functional connectivity: biophysical underpinnings and ramifications. In *Proceedings 19<sup>th</sup> Scientific Meeting, International Society for Magnetic Resonance in Medicine, Montreal*, 2011.
- [42] **R. Cameron Craddock**, G. Andrew James, Paul E. Holtzheimer, Xiaoping P. Hu, and Helen S. Mayberg. ROI atlas generation from whole brain parcellation of resting state fMRI data. In *Proceedings 18<sup>th</sup> Scientific Meeting, International Society for Magnetic Resonance in Medicine, Stockholm*, 2010.
- [43] **R. Cameron Craddock**, G. Andrew James, Paul E. Holtzheimer, Xiaoping P. Hu, and Helen S. Mayberg. A whole brain fMRI atlas generated via spatially constrained spectral clustering: Part I, method. In *Proceedings Organization for Human Brain Mapping 16<sup>th</sup> Annual Meeting*, pages 1006, MT–PM, Barcelona, 2010.
- [44] **R. Cameron Craddock**, G. Andrew James, Paul E. Holtzheimer, Xiaoping P. Hu, and Helen S. Mayberg. A whole brain fMRI atlas generated via spatially constrained spectral clustering. In

- Proceedings Second Biennial International Conference on Resting-State Functional Connectivity, Milwaukee, MI, 2010.
- [45] **R. Cameron Craddock** and Stephen M. LaConte. Estimation of resting state network activity using support vector regression. In *Proceedings Organization for Human Brain Mapping 16<sup>th</sup> Annual Meeting*, pages 1280, WTh–PM, Barcelona, 2010.
- [46] **R. Cameron Craddock** and Stephen M. LaConte. Estimation of resting state network activity using support vector regression. In *Proceedings Second Biennial International Conference on Resting-State Functional Connectivity*, Milwaukee, MI, 2010.
- [47] G. Andrew James, **R. Cameron Craddock**, Paul E. Holtzheimer, Xiaoping P. Hu, and Helen S. Mayberg. A whole brain fMRI atlas generated via spatially constrained spectral clustering: Part II, validity. In *Proceedings Organization for Human Brain Mapping 16<sup>th</sup> Annual Meeting*, pages 1063, MT–PM, Barcelona, 2010.
- [48] **R. Cameron Craddock**, Paul E. Holtzheimer, Xiaoping P. Hu, and Helen S. Mayberg. Disease state prediction from resting state fMRI. In *Proceedings Organization of Human Brain Mapping* 15<sup>th</sup> Annual Meeting, pages 462, F–PM, San Francisco, 2009.
- [49] **R. Cameron Craddock**, Paul E. Holtzheimer, Xiaoping P. Hu, and Helen S. Mayberg. Disease state prediction from resting state functional connectivity. In *Proceedings 17<sup>th</sup> Scientific Meeting, International Society for Magnetic Resonance in Medicine, Honolulu*, page 1645, 2009.
- [50] Gopi Deshpande, G. Andrew James, R. Cameron Craddock, Helen S. Mayberg, and Xiaoping P. Hu. Predicting treatment in patients with major depression using granger-based connectivity and support vector machines. In *Proceedings 17<sup>th</sup> Scientific Meeting, International Society for Magnetic Resonance in Medicine, Honolulu*, page 3362, 2009.
- [51] Christopher B. Glielmi, Qin Xu, **R. Cameron Craddock**, and Xiaoping P. Hu. Simultaneous acquisition of gradient echo / spin echo BOLD and perfusion with a separate labeling coil. In *Proceedings 17<sup>th</sup> Scientific Meeting, International Society for Magnetic Resonance in Medicine, Honolulu*, page 4540, 2009.
- [52] G. Andrew James, **R. Cameron Craddock**, Mary E. Kelley, Paul E. Holtzheimer, Boadie Dunlop, Charles Nemeroff, Helen S. Mayberg, and Xiaoping P. Hu. Assessing fit of individuals to group-derived structural equation models of resting-state fMRI data. In *Proceedings 17<sup>th</sup> Scientific Meeting, International Society for Magnetic Resonance in Medicine, Honolulu*, page 3364, 2009.
- [53] G. Andrew James, R. Cameron Craddock, Mary E. Kelley, Paul E. Holtzheimer, Boadie Dunlop, Charles B. Nemeroff, Xiaoping P. Hu, and Helen S. Mayberg. Assessing intersubject commonalities and differences with group-derived structural equation models of resting-state fMRI data. In *Proceedings OHBM 15<sup>th</sup> Annual Meeting*, pages 462, F–PM; O–SU–6, San Francisco, 2009.
- [54] Jaemin Shin, **R. Cameron Craddock**, Helen S. Mayberg, and Xiaoping P. Hu. Spatial and subject variability of long-term respiration effects in fMRI. In *Proceedings 17<sup>th</sup> Scientific Meeting, International Society for Magnetic Resonance in Medicine, Honolulu*, page 1654, 2009.
- [55] KiSueng Choi, **R. Cameron Craddock**, Paul E. Holtzheimer, Xiaoping P. Hu, and Helen S. Mayberg. White matter disruption in early- and late-onset depression: a tract-based spatial statistical analysis. In *Proceedings 16<sup>th</sup> Scientific Meeting, International Society for Magnetic Resonance in Medicine*, page 3553, Toronto, 2008. Poster Award: 2nd Place.

- [56] KiSueng. Choi, R. Cameron Craddock, Paul E. Holtzheimer, Zhi. Yang, Xiaoping P. Hu, and Helen S. Mayberg. A combined functional-structural connectivity analysis of major depression using joint independent components analysis. In *Proceedings 16<sup>th</sup> Scientific Meeting, International Society for Magnetic Resonance in Medicine*, page 3555, Toronto, 2008.
- [57] R. Cameron Craddock, Christopher B. Glielmi, Paul E. Holtzheimer, Xiaoping P. Hu, and Helen S. Mayberg. Discrepencies between functional connectivity measured with BOLD and CBF in major depressive disorder. In *Proceedings 16<sup>th</sup> Scientific Meeting, International Society for Magnetic Resonance in Medicine*, page 3599, Toronto, 2008.
- [58] G. Andrew James, Mary E. Kelley, R. Cameron Craddock, Paul E. Holtzheimer, and Helen S. Mayberg. Abnormal subgenual anterior cingulate connectivity in major depressive disorder. In 63<sup>rd</sup> Annual Scientific Conference of the Society of Biological Psychiatry, Washington DC, 2008.
- [59] G. Andy James, Scott J. Peltier, R. Cameron Craddock, Stephen M. La Conte, Helen S. Mayberg, and Xiaoping P. Hu. Reliable modeling of resting-state emotional networks in major depressive disorder: Applicability of exploratory structural equation modeling to small sample sizes. In Proceedings 16<sup>th</sup> Scientific Meeting, International Society for Magnetic Resonance in Medicine, page 95, Toronto, 2008.
- [60] Helen S. Mayberg, **R. Cameron Craddock**, Paul E. Holtzheimer, David A. Gutman, Dylan Wint, and Robert Gross. Functional connectivity models of major depression and antidepressant response explored using deep brain stimulation. In *63<sup>rd</sup> Annual Scientific Conference of the Society of Biological Psychiatry*, Washington DC, 2008.
- [61] Jaemin Shin, **R. Cameron Craddock**, and Xiaoping P. Hu. Retrospective estimation and correction of long-term physiological effects in fMRI. In *Proceedings 16<sup>th</sup> Scientific Meeting, International Society for Magnetic Resonance in Medicine*, page 2466, Toronto, 2008.
- [62] R. Cameron Craddock, Scott J. Pelter, Holtzheimer Paul E., Xiaoping P. Hu, and Helen S. Mayberg. The Cg25 resting state network. In *Proceedings Organization for Human Brain Mapping 13<sup>th</sup> Annual Meeting*, pages 260, M–PM, Chicago, 2007.
- [63] Paul E. Holtzheimer, KiSueng Choi, David A. Gutman, R. Cameron Craddock, and Helen S. Mayberg. Investigating neural network abnormalities in late-life depression. In Seeking Biomarkers of Aging and Diseases of Aging, An American Federation of Aging Research Conference, New York, 2007.
- [64] G. Andy James, Stephen M. La Conte, R. Cameron Craddock, Helen S. Mayberg, and Xiaoping P. Hu. Structural equation modeling of resting-state temporal lobe functional connectivity. In Proceedings 15<sup>th</sup> Scientific Meeting, International Society for Magnetic Resonance in Medicine, page 2208, Berlin, 2007.
- [65] Mary E. Kelly, **R. Cameron Craddock**, Paul E. Holtzheimer, Sidney H. Kennedy, and Helen S. Mayberg. Resting state brain connectivity as predictors of treatment response in depression. In 62<sup>nd</sup> Annual Scientific Convention and Program of the Society of Biological Psychiatry, San Deigo, 2007.
- [66] **R. Cameron Craddock**, Svetlana Masalovich, Scott J. Pelter, Xiaoping P. Hu, and Helen S. Mayberg. Multivariate analysis of resting state fMRI in major depression using SeedPLS. In *Proceedings 14<sup>th</sup> Scientific Meeting, International Society for Magnetic Resonance in Medicine*, page 2850, Seattle, 2006.

- [67] Toni Whistler, Renee Taylor, **R. Cameron Craddock**, Gordon Broderick, Nancy Klimas, and Elizabeth R. Unger. Gene expression correlates of unexplained fatigue. In *Experimental Biology*, San Francisco, 2006.
- [68] R. Cameron Craddock, Eric Aslakson, and Suzanne D. Vernon. Development of a gene expression microarray database for flexible data processing, analysis, and archiving. In CDC Genomics Day, Atlanta, 2005.
- [69] Matthew Tiller, Eric Aslakson, R. Cameron Craddock, and Suzanne D. Vernon. Development of a text mining tool that provides gene informatino in specific disease and biological context. In 13<sup>th</sup> Annual International Conference on Intelligent Systems for Molecular Biology, Detriot, 2005.

# **Teaching**

- 10/2016, Performing High-Throughput Connectomes Analysis with C-PAC Hands-on Course, Institute of Neurobiology, UNAM, Querétaro, Mexico — organized and taught all lectures of 2-day course
- 12/2015, Performing High-Throughput Connectomes Analysis with C-PAC Hands-on Course, Child Mind Institute, New York, New York — organized and taught most lectures of 2-day course
- 10/2015, Performing High-Throughput Connectomes Analysis with C-PAC Hands-on Course, Institute of Neurobiology, UNAM, Querétaro, Mexico — organized and taught most lectures of 2-day course
- 07/2015, Functional Neuroimaging: A Hands On Approach, Instituto do Cérebro, PUCRS Porto Alegre, Brazil taught several lectures of 4-day course
- 08/2014, Functional Neuroimaging: A Hands On Approach, Instituto do Cérebro, PUCRS Porto Alegre, Brazil taught several lectures of 4-day course
- 07/2014, 0407–03: Biomedical Instrumentation and Medical Imaging Mapping the Connectivity of the Human Brain, [Web page], Engenharia Elétrica, PUCRS Porto Alegre, Brazil taught 1 credit of 3 credit course
- 08/2013, Functional Neuroimaging: A Hands On Approach, Instituto do Cérebro, PUCRS Porto Alegre, Brazil taught several lectures of 4-day course

## Service

- Founding Chair, The Organization for Human Brain Mapping Open Science Special Interest Group Co-founder, The Neuro Bureau
- Guest Editor, Gigascience Brainhack Thematic Series, NeuroImage Special Issue on Brain Segmentation and Parcellation
- Editor, 2015 Brainhack Proceedings
- Conference Organizer, 2012 BrainHack and UnConference, Brainhack 2013, Brainhack EDT 2014, 2015 OHBM Hackathon, Brainhack Americas 2015, Brainhack MX 2015, 2016 OHBM Hackathon, Brainhack Vienna 2016, Brainhack LA 2016
- Conference Reviewer, 17<sup>th</sup> Meeting of the Organization for Human Brain Mapping (2011), 16<sup>th</sup> Meeting of the Organization for Human Brain Mapping (2010), 13<sup>th</sup> International Conference on Medical Image Computing and Computer Assisted Intervention (2010)
- Grant Reviewer, 2014–2016 New Jersey Commission on Brain Injury Research, 2015 NSF/NIH Collaborative Research on Computational Neuroscience

Journal Reviewer, NeuroImage, Human Brain Mapping, Journal of Neuroscience Methods, Frontiers in Systems Neuroscience, IEEE Transactions in Medical Imaging, Magnetic Resonance Imaging, Biological Psychiatry, Frontiers in Neuroanatomy, Neuroinformatics, JAMA Psychiatry

Judge, 2005 Georgia State Science and Engineering Fair, Athens, GA

Mentor, 2002–2003 Georgia Tech Intel Opportunity Scholars, Atlanta, GA, 2011–2014 Child Mind Institute Endeavor Scientist Program

Video Advisor, 2010–2011, NeuroImage YouTube Channel

# **Honors and Awards**

- 2013, Biobehavioral Research Awards for Innovative New Scientists (BRAINS), NIH/NIMH
- 2011, Poster Award, 1<sup>st</sup> Place Functional Imaging, 19<sup>th</sup> Scientific Meeting of the International Society for Magnetic Resonance in Medicine, Montreal
- 2010, NARSAD Young Investigator Award, Brain and Behavior Research Foundation
- 2010, Philips Travel Stipend Award, Second Biennial International Conference on Resting-State Functional Brain Connectivity
- 2009, Organization of Human Brain Mapping Trainee Abstract Award
- 2008, CCB/IPAM MBI Summer Fellow
- 2008, ISMRM Educational Stipend
- 2007, ISMRM Educational Stipend
- 2006, BioInfoSummer 2006 Travel Scholarship
- 2006, ISMRM Educational Stipend
- 2003, Georgia Tech Office of Minority Education Tower Award
- 2000–2001, Opuswave Networks INC.: numerous individual/team awards
- 1998, CIA Meritorious Unit Citation
- 1998, Lucent Technologies Achievement Award
- 1995–1999, Stokes Undergraduate Scholarship
- 1995–1999, Georgia Tech Dean's List seven times
- 1995-1999, Georgia Tech Faculty Honors twice

# **Professional Memberships**

International Society for Magnetic Resonance in Medicine Organization for Human Brain Mapping

### Other Education/Certifications

2010, Siemens ICE and SDE programming courses

## For More Information:

Google Scholar Citations: http://tinyurl.com/CameronCraddockCitations

Impact Story: https://impactstory.org/u/0000-0002-4950-1303

Github: https://github.com/ccraddock

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