

# Richard Cameron Craddock

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## Education

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**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

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**Research Professor** 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**

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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

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

## Previous Grant Support

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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

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**[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]** 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](http://ccraddock.github.io/cluster_roi)

*Role:* Primary Developer

*Impact:* 2,329 downloads from nitrc.org, 7 Github forks

**[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:* Project Director, Developer

**[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](http://fcon_1000.projects.nitrc.org/indi/CoRR/html/ibatrt.html)

*Role:* Donor

**[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-founder, Contributor

**Impact:** 8,730 downloads from nitrc.org, used in 26 peer reviewed publications and 2 dissertations

**[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-founder, Contributor

## Patents

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European Patent 11188849.1 – 1560

11/11/11

US Patent 20,130,144,154

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

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- [1] P. Bellec, C. Chu, F. Chouinard-Decorte, Y. Benhajali, D. S. Margulies, and **R. Cameron Craddock**. The Neuro Bureau ADHD-200 Preprocessed repository. *Neuroimage*, Jul 2016. [DOI:10.1016/j.neuroimage.2016.06.034] [PMID:27423255] [\[Open Access\]](#) [\[Data Sharing\]](#).
- [2] 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].
- [3] **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 Sólón 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] [\[Open Access\]](#).
- [4] K. J. Gorgolewski, T. Auer, V. D. Calhoun, **R. Cameron 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] [\[Open Access\]](#).

- [5] Ting Xu, Alexander Opitz, **R. Cameron Craddock**, Xi-Nian Zuo, and Michael Milham. Intrinsic areal organization in the individual brain: Unique and reliable. *bioRxiv*, 2016. [DOI:10.1101/035790] [\[Open Access\]](#).
- [6] 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] [\[Open Access\]](#).
- [7] 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] [\[Open Access\]](#).
- [8] 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] [\[Open Access\]](#).
- [9] 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] [\[Open Access\]](#).
- [10] 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] [\[Open Access\]](#).
- [11] **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] [\[Open Access\]](#).
- [12] 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] [\[Open Access\]](#).
- [13] 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] [\[Open Access\]](#).
- [14] 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] [\[Open Access\]](#) [\[Open Source\]](#).
- [15] 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] [\[Open Access\]](#).

- [16] 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] [\[Open Access\]](#).
- [17] 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] [\[Open Access\]](#).
- [18] 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] [\[Open Access\]](#).
- [19] 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] [\[Open Access\]](#).
- [20] 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] [\[Open Access\]](#)[\[Data Sharing\]](#).
- [21] **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].
- [22] 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] [\[Open Access\]](#).
- [23] 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] [\[Open Access\]](#).
- [24] 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] [\[Open Access\]](#).



- [25] 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] [\[Open Access\]](#).
- [26] 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] [\[Open Access\]](#).
- [27] **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] [\[Open Access\]](#).
- [28] 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] [\[Open Access\]](#).
- [29] 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].
- [30] 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] [\[Open Access\]](#).
- [31] 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] [\[Open Access\]](#).
- [32] **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] [\[Open Access\]](#) [\[Open Source\]](#).
- [33] 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] [PubMed:PMID:22341211] [\[Open Access\]](#).
- [34] 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] [\[Open Access\]](#).
- [35] 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](#)].
- [36] 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. *Magnetic Resonance in Medicine*, 64(6):1827--1831, Dec 2010. [DOI:10.1002/mrm.22554] [PMID:20648682] [[Open Access](#)].
- [37] **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](#)].
- [38] 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](#)].
- [39] 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](#)].
- [40] 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](#)].
- [41] 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].
- [42] **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].
- [43] 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

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- [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**. The Preprocessed Connectomes Project Quality Assessment Protocol. In *2016 The University of Alabama at Birmingham Visual Brain Core Seminar Series*, Birmingham, Alabama, 2016. [[Slides](#)].



- [3] **R. Cameron Craddock.** Tracking dynamic networks in real time. In *Proceedings of the 3<sup>rd</sup> Whistler Scientific Workshop: Brain Functional Organization, Connectivity, and Behavior*, Whistler-Blackcomb, British Columbia, Canada, 2016. [Slides].
- [4] **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].
- [5] **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.
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## Teaching

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- 08/2013, *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
- 08/2014, *Functional Neuroimaging: A Hands On Approach*, Instituto do Cérebro, PUCRS Porto Alegre, Brazil - taught several lectures of 4-day course
- 07/2015, *Functional Neuroimaging: A Hands On Approach*, Instituto do Cérebro, PUCRS Porto Alegre, Brazil - taught lecture of 4-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
- 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

## Service

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- 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

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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

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

## Other Education/Certifications

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2010, Siemens ICE and SDE programming courses

## For More Information:

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Google Scholar Citations: <http://tinyurl.com/CameronCraddockCitations>  
Impact Story: <https://impactstory.org/CameronCraddock>  
Github: <https://github.com/ccraddock>  
ResearchGate: [https://www.researchgate.net/profile/Cameron\\_Craddock](https://www.researchgate.net/profile/Cameron_Craddock)  
Researcher ID: <http://www.researcherid.com/rid/P-1980-2014>  
ORCID: <http://orcid.org/0000-0002-4950-1303>  
SciENcv: <https://www.ncbi.nlm.nih.gov/myncbi/richard.craddock.1/cv/18275/>  
SlideShare: <http://www.slideshare.net/CameronCraddock>