

## Rastko Ciric

Ph.D. Student in Bioengineering, admitted Autumn 2018

### Bio

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### BIO

The "publication topics for this person" are algorithmically generated and do not reflect either current or previous research interests.

### Publications

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#### PUBLICATIONS

- **Differentiable programming for functional connectomics**  
Ciric, R., Thomas, A. W., Esteban, O., Poldrack, R. A.  
arXiv preprint.  
2022
- **Mitigating head motion artifact in functional connectivity MRI.** *Nature protocols*  
Ciric, R. n., Rosen, A. F., Erus, G. n., Cieslak, M. n., Adebimpe, A. n., Cook, P. A., Bassett, D. S., Davatzikos, C. n., Wolf, D. H., Satterthwaite, T. D.  
2018; 13 (12): 2801–26
- **Contextual connectivity: A framework for understanding the intrinsic dynamic architecture of large-scale functional brain networks.** *Scientific reports*  
Ciric, R., Nomi, J. S., Uddin, L. Q., Satpute, A. B.  
2017; 7 (1): 6537
- **Benchmarking of participant-level confound regression strategies for the control of motion artifact in studies of functional connectivity.** *NeuroImage*  
Ciric, R. n., Wolf, D. H., Power, J. D., Roalf, D. R., Baum, G. L., Ruparel, K. n., Shinohara, R. T., Elliott, M. A., Eickhoff, S. B., Davatzikos, C. n., Gur, R. C., Gur, R. E., Bassett, et al  
2017; 154: 174–87
- **Analysis of task-based functional MRI data preprocessed with fMRIPrep.** *Nature protocols*  
Esteban, O., Ciric, R., Finc, K., Blair, R. W., Markiewicz, C. J., Moodie, C. A., Kent, J. D., Goncalves, M., DuPre, E., Gomez, D. E., Ye, Z., Salo, T., Valabregue, et al  
2020
- **Optimization of energy state transition trajectory supports the development of executive function during youth.** *eLife*  
Cui, Z. n., Stiso, J. n., Baum, G. L., Kim, J. Z., Roalf, D. R., Betzel, R. F., Gu, S. n., Lu, Z. n., Xia, C. H., He, X. n., Ciric, R. n., Oathes, D. J., Moore, et al  
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- **Temporal sequences of brain activity at rest are constrained by white matter structure and modulated by cognitive demands.** *Communications biology*  
Cornblath, E. J., Ashourvan, A. n., Kim, J. Z., Betzel, R. F., Ciric, R. n., Adebimpe, A. n., Baum, G. L., He, X. n., Ruparel, K. n., Moore, T. M., Gur, R. C., Gur, R. E., Shinohara, et al  
2020; 3 (1): 261
- **Development of structure-function coupling in human brain networks during youth.** *Proceedings of the National Academy of Sciences of the United States of America*  
Baum, G. L., Cui, Z., Roalf, D. R., Ciric, R., Betzel, R. F., Larsen, B., Cieslak, M., Cook, P. A., Xia, C. H., Moore, T. M., Ruparel, K., Oathes, D. J., Alexander-Bloch, et al  
2019
- **Accelerated cortical thinning within structural brain networks is associated with irritability in youth** *NEUROPSYCHOPHARMACOLOGY*

- Jirsaraie, R. J., Kaczkurkin, A. N., Rush, S., Piiwia, K., Adebimpe, A., Bassett, D. S., Bourque, J., Calkins, M. E., Cieslak, M., Ciric, R., Cook, P. A., Davila, D., Elliott, et al  
2019; 44 (13): 2254–62
- **Evidence for Dissociable Linkage of Dimensions of Psychopathology to Brain Structure in Youths** *AMERICAN JOURNAL OF PSYCHIATRY*  
Kaczkurkin, A. N., Park, S., Sotiras, A., Moore, T. M., Calkins, M. E., Cieslak, M., Rosen, A. G., Ciric, R., Xia, C., Cui, Z., Sharma, A., Wolf, D. H., Ruparel, et al  
2019; 176 (12): 1000–1009
  - **System-level matching of structural and functional connectomes in the human brain** *NEUROIMAGE*  
Osmanoglu, Y., Tunc, B., Parker, D., Elliott, M. A., Baum, G. L., Ciric, R., Satterthwaite, T. D., Gur, R. E., Gur, R. C., Verma, R.  
2019; 199: 93–104
  - **Unifying the Notions of Modularity and Core-Periphery Structure in Functional Brain Networks during Youth.** *Cerebral cortex (New York, N.Y. : 1991)*  
Gu, S., Xia, C. H., Ciric, R., Moore, T. M., Gur, R. C., Gur, R. E., Satterthwaite, T. D., Bassett, D. S.  
2019
  - **Motion artifact in studies of functional connectivity: Characteristics and mitigation strategies** *HUMAN BRAIN MAPPING*  
Satterthwaite, T. D., Ciric, R., Roalf, D. R., Davatzikos, C., Bassett, D. S., Wolf, D. H.  
2019; 40 (7): 2033–51
  - **Associations between Neighborhood SES and Functional Brain Network Development.** *Cerebral cortex (New York, N.Y. : 1991)*  
Tooley, U. A., Mackey, A. P., Ciric, R., Ruparel, K., Moore, T. M., Gur, R. C., Gur, R. E., Satterthwaite, T. D., Bassett, D. S.  
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  - **Evaluation of confound regression strategies for the mitigation of micromovement artifact in studies of dynamic resting-state functional connectivity and multilayer network modularity** *NETWORK NEUROSCIENCE*  
Lydon-Staley, D. M., Ciric, R., Satterthwaite, T. D., Bassett, D. S.  
2019; 3 (2): 427–54
  - **Faster family-wise error control for neuroimaging with a parametric bootstrap** *BIOSTATISTICS*  
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  - **Linked dimensions of psychopathology and connectivity in functional brain networks** *NATURE COMMUNICATIONS*  
Xia, C., Ma, Z., Ciric, R., Gu, S., Betzel, R. F., Kaczkurkin, A. N., Calkins, M. E., Cook, P. A., de la Garza, A., Vandekar, S. N., Cui, Z., Moore, T. M., Roalf, et al  
2018; 9: 3003
  - **The impact of in-scanner head motion on structural connectivity derived from diffusion MRI** *NEUROIMAGE*  
Baum, G. L., Roalf, D. R., Cook, P. A., Ciric, R., Rosen, A. G., Xia, C., Elliott, M. A., Ruparel, K., Verma, R., Tunc, B., Gur, R. C., Gur, R. E., Bassett, et al  
2018; 173: 275–86
  - **Quantitative assessment of structural image quality** *NEUROIMAGE*  
Rosen, A. G., Roalf, D. R., Ruparel, K., Blake, J., Seelaus, K., Villa, L. P., Ciric, R., Cook, P. A., Davatzikos, C., Elliott, M. A., de La Garza, A., Gennatas, E. D., Quarmley, et al  
2018; 169: 407–18
  - **Diminished Cortical Thickness Is Associated with Impulsive Choice in Adolescence** *JOURNAL OF NEUROSCIENCE*  
Pehlivanova, M., Wolf, D. H., Sotiras, A., Kaczkurkin, A. N., Moore, T. M., Ciric, R., Cook, P. A., de La Garza, A., Rosen, A. G., Ruparel, K., Sharma, A., Shinohara, R. T., Roalf, et al  
2018; 38 (10): 2471–81
  - **Brain state expression and transitions are related to complex executive cognition in normative neurodevelopment** *NEUROIMAGE*  
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2018; 166: 293–306
  - **The regulation of positive and negative emotions through instructed causal attributions in lifetime depression - A functional magnetic resonance imaging study** *NEUROIMAGE-CLINICAL*  
Loeffler, L. K., Radke, S., Habel, U., Ciric, R., Satterthwaite, T. D., Schneider, F., Derntl, B.  
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2017; 174 (7): 657–66
- **Modular Segregation of Structural Brain Networks Supports the Development of Executive Function in Youth** *CURRENT BIOLOGY*  
Baum, G. L., Ciric, R., Roalf, D. R., Betzel, R. F., Moore, T. M., Shinohara, R. T., Kahn, A. E., Vandekar, S. N., Rupert, P. E., Quarmley, M., Cook, P. A., Elliott, M. A., Ruparel, et al  
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- **Age-Related Effects and Sex Differences in Gray Matter Density, Volume, Mass, and Cortical Thickness from Childhood to Young Adulthood** *JOURNAL OF NEUROSCIENCE*  
Gennatas, E. D., Avants, B. B., Wolf, D. H., Satterthwaite, T. D., Ruparel, K., Ciric, R., Hakonarson, H., Gur, R. E., Gur, R. C.  
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- **Evolution of brain network dynamics in neurodevelopment** *NETWORK NEUROSCIENCE*  
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