Caterina Gratton, Ph.D.

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ACADEMIC APPOINTMENTS

2022 - present	Florida State University, Tallahassee, FL		
	Associate Professor, Psychology Department		

Northwestern University, Evanston, IL

Affiliated Faculty, Department of Psychology

2018 - 2022 Northwestern University, Evanston, IL

Assistant Professor, Department of Psychology

Assistant Professor, Department of Neurology (by courtesy)
Preceptor, NU Interdepartmental Neuroscience Program (NUIN)

Preceptor, Cognitive Neuroscience Program Affiliated Faculty, Cognitive Science Program

EDUCATION

2014 2010	Destale stand Calculan	\A/ ! · ·	11
2014 - 2018	Postdoctoral Scholar	. vvasnington	University in St. Louis

Advisor: Steve Petersen

Large-scale brain network properties and their roles in task control

2008 - 2013 Ph.D., Helen Wills Neuroscience Program, University of California, Berkeley

Advisors: Mark D'Esposito and Michael Silver

Thesis: Attention and Disruption: Modulating the interactions between large-scale brain

networks and the properties of local cortical regions

2004 - 2008 **B.S.**, Psychology & Neuroscience, University of Illinois at Urbana-Champaign

Summa Cum Laude, Highest Distinction

Advisor: Kara Federmeier

Honors Thesis: In whole or in part? An ERP analysis of global/local processing asymmetries with

naturalistic objects

AWARDS AND HONORS

Special Issue Editor, Current Opinion in Behavioral Sciences	2020-2021
Associate Editor, Network Neuroscience	2018-present
American Psychological Society, Rising Star	2017
Society for Neuroscience, Trainee Professional Development Award	2017
NIH/NINDS F32 National Research Service Award	2015-2017
NIH/NINDS T32 National Research Service Award (WUSTL Neurology)	2014-2015
Society for Neuroscience Chapter Travel Award	2013
NDSEG Graduate Research Fellowship	2010-2013
National Science Foundation Graduate Research Fellowship	2008-2010
University of Illinois Bronze Tablet	2008
Michael Coles Award: Brain and Cognitive Psychology Award	2008
Goldwater Foundation Scholarship	2007-2008
University of Illinois J. C. Weagant and W. G. Crist Memorial Scholarship	2007-2008
University of Illinois Dad's Library Award	2006

Updated: 8/16/22

University of Illinois Robert Byrd Scholar	2004-2008
University of Illinois Chancellor's Scholar	2004-2008
FMC Award of Excellence (Scholarship)	2004-2005
National Merit Finalist	2004

GRANTS AND FELLOWSHIPS

Awarded 2021-2026	NSF CAREER - Elucidating the role of	brain hubs in task control
2021-2020	Role: Pl	Award: \$967,191
2021-2024	NIH/NIMH R01 Administrative supp <i>Role</i> : PI	Dlement - Individual differences across the lifespan Award: \$512,373
2019-2024	NIH/NIMH R01 - Sources and function networks measured with fMRI	nal consequences of individual differences in human brain
	Role: Pl	Award: \$2,882,952
2020-2022	Abu Dhabi Award for Research Exce <i>Role</i> : Consultant (PI: K. Sreenivasan)	ellence - The structural and functional basis of working memory Award: AED 1,000,000 (consultant budget: travel funds)
Pending		
2022-2027	NIH/NINDS R01 - Precision Mapping <i>Role</i> : Co-PI (PI: M. Campbell, WUSTL) <i>Status</i> : scored 9 th percentile, awaiting	
Completed		
2019-2020	NIH/NIA: Mesulam Center Pilot - <i>Pre Role</i> : Sub-project PI	ecision scanning of functional brain networks in older adults Award: \$35,000
2015-2017	NIH/NINDS NRSA F32- Examining vu Role: PI (Sponsor: Steve Petersen)	ulnerable brain locations using network analysis Award: \$109,300
2014-2015	NIH/NINDS NRSA T32 - WUSTL Neur Role: Trainee (Sponsor: Steve Peterse	
2010-2013	National Defense Science & Engine <i>Role</i> : PI	ering Graduate Research Fellowship Award: \$32,000/yr.
2008-2010	National Science Foundation Gradu <i>Role</i> : PI	ate Research Fellowship Award: \$30,000/yr.

PUBLICATIONS

Profile: <u>Google Scholar</u>, <u>underline</u> = trainee

Published

- 1. <u>Ladwig, Z.</u>, Seitzman, B.A., Adeyemo, B., <u>Yu, Y.</u>, <u>Smith, D.</u>, Petersen, S.E., **Gratton, C.** (in press). BOLD cofluctuation 'events' are predicted from static functional connectivity. *Neuroimage*, < Previous version available at: <u>bioRxiv</u> >
- 2. <u>Ladwig, Z., Yu, Y., **Gratton, C.** (in press)</u>. Combined methods reveal task activation dynamics in human brain networks. *PLOS Biology*.

- 3. <u>Porter, A.</u>, Nielsen, A.N., <u>Dorn, M.</u>, <u>Dworetsky, A.</u>, <u>Edmonds, D.</u>, **Gratton, C.** (in press) Masked features of task states found in individual brain networks. *Cerebral Cortex*. <Previous version available at: <u>bioRxiv</u>>
- 4. **Gratton, C.,** Nelson, S. M., Gordon, E. M. (2022). Brain-behavior correlations: two paths toward reliability [Invited Spotlight]. *Neuron*. 110 (9), 1446-1449
- 5. Zheng, A., Montez, D. F., Marek, S., Gilmore, A. W., Newbold, D. J., Laumann, T. O., Kay, B. P., Seider, N. A., Van, A. N., Hampton, J., M., Alexopolous, D., Scheidter, K. M., Miller, R. L., Schlaggar, B. L., Sylvester, C., Petersen, S. E., Greene, D. J., Shimony, J. S., Nelson, S. M., Wig, G. S., **Gratton, C.**, McDermott, K., B., Raichle, M. E., Gordon, E. M., Dosenbach, N.U.F. (2021). Dual hippocampal-medial parietal circuits dissociated by individual-specific precision functional mapping. *PNAS*. <*Previous version available at* bioRxiv>
- 6. **Gratton, C.**, Braga, R. M. (2021). Deep imaging of the individual brain: past, practice, and promise [Special Issue Editorial]. *Current Opinions in Behavioral Sciences*.
- 7. <u>Dworetsky, A.</u>, Seitzman, B. A., Adeyemo, B., Coalson, R.S., Neta, M., Petersen, S. E., **Gratton, C.** (2021). Probabilistic mapping of human functional brain networks. *Neuroimage*, 237, 118164 < Previous version available at <u>bioRxiv</u> >
- 8. Anderson, Z., **Gratton, C**., Nusslock, R. (2021). The value of hyperalignment to unpack neural heterogeneity in the precision psychiatry movement (Correspondence). *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*
- 9. <u>Kraus, B. T.</u>, <u>Perez, D. R.</u>, <u>Ladwig, Z.</u>, Seitzman, B. A., <u>Dworetsky, A.</u>, Petersen, S. E., **Gratton, C.** (2021). Network variants are similar between task and rest states. *Neuroimage*, 229, 117743 < Previous version available at <u>bioRxiv</u>>
- 10. <u>Smith, D. M., Porter, A., Perez, D. R., Dworetsky, A., **Gratton, C.** (2021). Light through the fog: Using precision fMRI to disentangle the neural substrates of cognitive control. *Current Opinion in Behavioral Sciences*, 40, 19-26. <Previous version available at <u>PsyArXiv</u> ></u>
- 11. **Gratton, C.**, Mittal, V. A. (2020). Embracing the complexity of heterogeneity in schizophrenia: A new perspective from latent clinical-anatomical dimensions. (Invited Editorial). *Schizophrenia Bulletin*, 46 (6), 1337-1338
- 12. Gordon, E.M., Laumann, T. O., Marek, S., Raut, R. V., **Gratton, C.,** Gilmore, A. W., Newbold, D. J., Greene, D. J., Coalson, R. S., Snyder, A. Z., Schlaggar, B. L., Petersen, S. E., Dosenbach, N. U. F. D., Nelson, S. M. (2020) Default mode network streams for coupling to language and controls systems. *Proceedings of the National Academy of Sciences*, 117 (29), 17308-17319
- 13. Okerstrom-Jezewski, K. L., Grafft, A., Denburg, N., Bruss, J., Deifelt Streese, C., **Gratton, C.**, Tranel., D. (2020). How early damage to the dorsomedial prefrontal hub in human brain networks affects long term cognitive, behavioral, and neuroanatomical outcomes. *Psychology and Neuroscience*, 13 (3), 245
- 14. Gratton, C., <u>Dworetsky</u>, A., Coalson, R. S., Adeyemo, B., Laumann, T. O., Wig, G., Kong, T.S., Gratton, G., Fabiani, M., Barch, D. M., Tranel, D., Miranda-Dominguez, O., Fair, D. A., Dosenbach, N.U.F.D., Snyder, A.Z., Perlmutter, J.S., Petersen, S.E., Campbell, M.C. (2020). Removal of high frequency contamination from motion estimates in single-band fMRI saves data without biasing functional connectivity. *Neuroimage*, 217, 116866 < Previous version available at: <u>bioRxiv</u>.>
- 15. **Gratton, C**., <u>Smith, D. M.</u>, <u>Dorn, M.</u> (2020). Digging deeper to chart the landscape of human brain development. Neuron, 106 (2), 209-211. <Invited Preview to: *Individual variation in functional topography of association networks in youth*>
- 16. Fair, DA, Miranda-Dominguez, O, Perrone, A, Earl, EA, Van, AN, Koller, JM, Feczko, E, Klein, RL, Mirro, AE, Hampton, JM, Adeyemo, B, Snyder, AZ, Nguyen, A, Laumann, TO, **Gratton, C**, Greene, DJ, Schlaggar, BL, Hagler, D, Watts, R, Garavan, H, Barch, DM, Casey, BJ, Nigg, JT, Petersen, SE, Dale, A, Feldstein-Ewing, SW, Nagel, BJ, Dosenbach, NUF (2020). Correction of respiratory artifacts in MRI head motion estimates. *Neuroimage*, 208, 116400 /previous version available at bioRxiv.

- 17. Greene, DJ, Marek, S, Siegel, JS, Gordon, EM, **Gratton, C**, Newbold, DJ, Ortega, M, Laumann, TO, Miller, DB, Zheng, A, Lopez, KC, Berg, JJ, Coalson, RS, Nguyen, AL, Dierker, D, Van, AN, Hoyt, CR, McDermott, KB, Norris, SA, Shimony, JS, Snyder, AZ, Nelson, SM, Barch, DM, Schlaggar, BL, Raichle, ME, Petersen, SE, Dosenbach, NUF. (2020). Individual specific and shared integrative zones of the human thalamus and basal ganglia. *Neuron*. 105(4):742-758. PMID: 31836321
 - a. <u>Preview</u>: Lynch, C. J., & Liston, C. (2020). Precision Functional Mapping of Corticostriatal and Corticothalamic Circuits: Parallel Processing Reconsidered. Neuron, 105(4), 595-597.
- 18. **Gratton, C**., <u>Kraus, B.T.</u>, Greene, D.J., Gordon, E.M., Laumann, T.O., Nelson, S. M., Dosenbach, N.U.F., Petersen, S.E. (2019). Defining individual-specific functional neuroanatomy for precision psychiatry (Invited Review). *Biological Psychiatry*.
- 19. Seitzman, BA*, **Gratton, C***, Laumann TO, Gordon EM, Adeyemo B, Dworetsky, A, <u>Kraus, BT</u>, Gilmore AW, Berg JJ, Ortega M, Nguyen, A, Greene DJ, McDermott KB, Nelson SM, Lessov-Schlaggar, CN, Schlaggar BL, Dosenbach NUF, Petersen SE. (2019). Trait-like variants of human functional brain networks. *PNAS*, 116 (45), 22851-22861. PubMed. * = joint first authors
 - a. <u>Commentary</u>: D'Esposito, M. (2019). Are individual differences in human brain organization measured with functional MRI meaningful?. Proceedings of the National Academy of Sciences, 116(45), 22432-22434.
- 20. Kong, TS, **Gratton, C,** Low, KA, Tan, CH, Chiarelli, AM, Fletcher, MA, Zimmerman, B, Maclin, EL, Gratton, G, Fabiani, M. (2019) Age-related differences in functional brain network segregation are associated with a cascade of cerebrovascular, structural, and cognitive effects. *Network Neuroscience*, 1-26.
- 21. Seitzman, BA, **Gratton C**, Marek, S, Raut, RV, Dosenbach, NUF, Schlaggar BL, Petersen SE, Greene DJ. (2019) A set of functionally-defined brain regions with improved representation of the subcortex and cerebellum. *Neuroimage*, 116290. bioRxiv. PubMed.
- 22. Nielsen, AN, **Gratton, C**, Church, JA, Dosenbach, NUF, Black, KJ, Petersen, SE, Schlaggar, BL, Greene, DJ. (2019) Atypical functional connectivity in Tourette Syndrome differs between children and adults. *Biological Psychiatry*. bioRxiv. PubMed.
- 23. Betzel, R.F., Bertolero, M. A., Gordon, E.M., **Gratton, C**., Dosenbach, N.U.F., Bassett, D.S. (2019). The community structure of functional brain networks exhibits scale-specific patterns of variability across individuals and time. *Neuroimage*, 202, 115990. <u>bioRxiv. PubMed</u>.
- 24. Gilmore, AW, Nelson, SM, Laumann, TO, Gordon, EM, Berg, JJ, Greene, DJ, **Gratton, C,** Nguyen, AL, Ortega, M, Hoyt, C, Coalson, RS, Schlaggar, BL, Petersen, SE, Dosenbach, NUF, McDermott, KB. (2019). High-fidelity mapping of repetition-related changes in the parietal memory network. *Neuroimage*, 199, 427-439. PubMed.
- 25. Marek, S, Siegel, JS, Gordon, EM, Raut, RV, **Gratton, C**, Newbold, DJ, Ortega, M, Laumann, TO, Miller, DB, Zheng, A, Lopez, KC, Berg, JJ, Coalson, RS, Nguyen, AL, Dierker, D, Van, AN, Hoyt, CR, McDermott, KB, Norris, SA, Shimony, JS, Snyder, AZ, Nelson, SM, Barch, DM, Schlaggar, BL, Raichle, ME, Petersen, SE, Greene, DJ, Dosenbach, NUF. (2018) Spatial and temporal organization of the individual human cerebellum. *Neuron*, 100 (4), 977-993. PubMed.
 - a. <u>Preview</u>: Fair, D. A. (2018). The Big Reveal: Precision Mapping Shines a Gigantic Floodlight on the Cerebellum. Neuron, 100(4), 773-776.
- 26. Gordon, EM, Lynch, CJ, **Gratton, C**, Laumann, TO, Gilmore, AW, Greene, DJ, Ortega, M, Nguyen, AL, Schlaggar, BL, Petersen, SE, Dosenbach, NUF, Nelson, SM (2018). Distinct sets of internal, external, and control connector hubs integrate human brain function. *Cell Reports*, 24(7), 1687-1695. <u>PubMed</u>
- 27. **Gratton, C**, Koller, JM, Shannon, W, Greene, DJ, Snyder, AZ, Petersen, SE, Perlmutter, JS, Campbell, MC. (2018). Emergent functional network effects in Parkinson disease. *Cerebral Cortex*, 6, 2509-2523 <u>PubMed</u>

- 28. Nielsen, A, Greene, DJ, **Gratton, C**, Dosenbach, NUF, Petersen, SE, Schlaggar, BL (2018). Evaluating the prediction of brain maturity from functional connectivity after motion artifact de-noising. *Cerebral Cortex*. <u>PubMed</u>
- 29. **Gratton, C**, Laumann, TO, Nielsen, AN, Greene, DJ, Gordon, EM, Gilmore, AW, Nelson, SM, Coalson, RS, Snyder, AZ, Schlaggar, BL, Dosenbach, NUF, Petersen, SE (2018). Functional brain networks are dominated by stable group and individual factors, not cognitive or daily variation, *Neuron*, 98(2) 439-452. PubMed
 - a. <u>Preview</u>: Satterthwaite, T. D., Xia, C. H., & Bassett, D. S. (2018). Personalized neuroscience: Common and individual-specific features in functional brain networks. Neuron, 98(2), 243-245.
- 30. **Gratton, C**, Sun, H, Petersen, SE. (2018). Control networks and hubs (Invited Review). *Psychophysiology*, 55 (3), e13032. PubMed
- 31. Gordon, EM, Laumann, TO, Gilmore, AW, Newbold, DJ, Greene, DJ, Berg, JJ, Ortega, M, Hoyt-Drazen, C, **Gratton, C**, Sun, H, Hampton, JM, Coalson, RS, Nguyen, A, McDermott, KB, Shimony, JS, Snyder, AZ, Schlaggar, BL, Petersen, SE, Nelson, SM, Dosenbach NUF. (2017). Precision functional mapping of individual human brains. *Neuron*, 95 (4), 791-807. PubMed
 - a. <u>Preview</u>: Poldrack, R. A. (2017). Precision neuroscience: Dense sampling of individual brains. *Neuron*, *95*(4), 727-729.
- 32. **Gratton, C,** Yousef, S, Aarts, E, Wallace, D, D'Esposito, M, Silver, MA. (2017). Cholinergic, but not dopaminergic or noradrenergic, enhancement sharpens visual spatial perception in humans. *Journal of Neuroscience*, 37 (16), 4405-4415 PubMed
- 33. **Gratton, C**, Laumann, T, Gordon, E, Adeyemo, B, Petersen, S. (2016) Evidence for two independent factors that modify brain networks to meet task goals. *Cell Reports*, 17(5), 1276-1288. <u>PubMed</u>
- 34. Laumann, TO, Snyder, AZ, Mitra, AM, Gordon, EM, **Gratton, C**, Adeyemo, B, Gilmore, AG, Nelson, SM, Berg, JJ, Greene, DJ, McCarthy, JE, Tagliazucchi, E, Laufs, H, Schlaggar, BL, Dosenbach NUF, Petersen, SE. (2016) On the stable nature of resting state fMRI correlations. *Cerebral Cortex*, 27 (10), 4719-4732. PubMed
- 35. **Gratton, C**, Neta, M, Sun, H, Ploran, EJ, Schlaggar, BL, Wheeler, ME, Petersen, SE, Nelson, SM. (2016) Distinct stages of moment-to-moment processing in the cinguloopercular and frontoparietal networks. *Cerebral Cortex*, 27 (3), 2403-2417. PubMed
- 36. Arnemann, KL, Chen, AJW, Novakovic-Agopian, T, **Gratton C**, Nomura, EM, D'Esposito M. (2015). Functional brain network modularity predicts response to cognitive training after brain injury. *Neurology*, 84 (15), 1568-1574.

 <u>PubMed</u>
- 37. **Gratton, C***, Lee, T*, Nomura, EM, D'Esposito, M. (2014). Perfusion MRI indexes variability in the functional brain effects of theta-burst transcranial magnetic stimulation. *PLOS ONE*, 9(7): e101430. PMCID: PMC4081571; **Joint first authors* PubMed
- 38. Sreenivasan, KK, **Gratton, C**, Vytlacil, J, D'Esposito, M. (2014) Evidence for working memory storage operations in perceptual cortex. *Cognitive, Affective, and Behavioral Neuroscience*, 14, 117-128 <u>PubMed</u>
- 39. **Gratton, C**, Lee, T, Nomura, EM, D'Esposito, M. (2013). The effect of theta-burst TMS on cognitive control networks measured with resting state fMRI. *Frontiers in Systems Neuroscience*, 7, 124. PMCID: PMC3874542 <u>PubMed</u>
- 40. **Gratton, C,** Sreenivasan, KK, Silver, MA, D'Esposito, M. (2013). Attention selectively modifies the representation of individual faces in the human brain. *Journal of Neuroscience*, 33, 6979-6989, PMCID: PMC3685582 PubMed
- 41. Blumenfeld, R, Nomura EM, **Gratton C**, D'Esposito M. (2013). Lateral prefrontal cortex is organized into parallel dorsal and ventral streams along the rostro-caudal axis. *Cerebral Cortex*, 23(10), 2457-66, PMCID: PMC3767956 PubMed
- 42. Li, L, Gratton, C, Fabiani, M, Knight, R. T. (2013). Control of bottom-up and top-down attention in aging: an ERP

- Study. Neurobiology of Aging. 34, 477-488. PMCID: PMC4090105 PubMed
- 43. **Gratton, C***, Nomura, EM*, Perez, F, D'Esposito, M. (2012). Focal brain lesions to critical locations cause widespread disruption of the modular organization of the brain. *Journal of Cognitive Neuroscience*, 24, 1275-1285. PMCID: PMC3575518 * *Joint first authors* PubMed
- 44. Bahlmann, J, Korb FM, **Gratton C**, Friederici AD. (2012). Levels of integration in cognitive control and sequence processing in the prefrontal cortex. *PLOS ONE, 7(8)*: e43774. PMCID: PMC3430694 <u>PubMed</u>
- 45. Nomura, EM, **Gratton, C**, Visser, RM, Kayser, A, Perez, F, & D'Esposito, M. (2010). Double dissociation of two cognitive control networks in patients with focal brain lesions. *Proceedings of the National Academy of Sciences of the United States of America*, 107(26), 12017-12022. PMCID: PMC2900657 PubMed
- 46. Li, L, **Gratton, C,** Yao, D, & Knight, RT. (2010). Role of frontal and parietal cortices in the control of bottom-up and top-down attention in humans. *Brain research*, 1344, 173-84. Elsevier B.V. PMCID: PMC2900444 PubMed
- 47. **Gratton, C**, Evans, KM, Federmeier, KD. (2009). See what I mean? An ERP study of the effect of background knowledge on novel object processing. *Memory and Cognition*. 37, 277-291. PMCID: PMC2682721 <u>PubMed</u>

Submitted or under review

- 1. Kong, T. S., Low, K. A., <u>Perez, D. R.</u>, **Gratton, C.**, Tan, C. H., Chiarelli, A. M., Fletcher, M. A., Zimmerman, B., Maclin, E. L., Sutton, B. P., Gratton, G., Fabiani, M. (in review). A distribution-based examination of network segregation in aging.
- 2. <u>Dworetsky, A., Seitzman, B.A., Adeyemo, B., Smith, D. M., Petersen, S.E., **Gratton, C.** (in review). Two common and distinct forms of variation in human functional brain networks. <u>bioRxiv</u></u>
- 3. <u>Smith, D. M., Kraus, B. T., Dworetsky, A.,</u> Gordon, E.M., **Gratton, C.** (in review) Brain hubs defined in the group do not overlap with regions of high inter-individual variability. <u>bioRxiv</u>
- 4. Hermosillo, R. J. M., Moore, L. A., Fezcko, E., Pines, A., Pines, A., <u>Dworetsky</u>, <u>A.</u>, Conan, G., Mooney, M.A., Randolph, A., Adeyemo, B., Earl, E., Perrone, A., Morales-Carrasco, C., Uriate-Lopez, J., Snider, K., Doyle, O., Cordova, M., Nagel, B. J., Ewing, S. W. F., Satterthwaite, T., Dosenbach, N.U.F.D, **Gratton, C.**, Petersen, S.E., Miranda-Dominguez, O., Fair, D.A. (in review). A Precision Functional Atlas of Network Probabilities and Individual-Specific Network Topography.
- 5. Uddin, L. Q., Betzel, R. F., Cohen, J. R., Damoiseaux, J. S., De Brigard, F., Eickhoff, S. B., Fornito, A., **Gratton, C.**, Gordon, E. M., Laird, A. R., Larson-Prior, L., McIntosh, A. R., Nickerson, L. D., Pessoa, L., Pinho, A. L., Poldrack, R. A., Razi, A., Sadaghiani, S., Shine, J. M., Yendiki, A., Yeo, B. T., Spreng, R. N. (in review). Controversies and current progress on large-scale brain network nomenclature from OHBM WHATNET: Workgroup for HArmonizing Taxonomy of NETworks.
- 6. <u>Yu, Y.</u>, **Gratton, C.**, Smith, D. M. (revise and resubmit). From correlation to communication: decomposition functional connectivity changes.
- 7. <u>Perez, D.R., Dworetsky, A., Braga, R.M., Beeman, M., **Gratton, C.** (revise and resubmit) Hemispheric asymmetries of individual differences in functional connectivity.</u>

In preparation

1. <u>Kraus, B.T.</u>, Nusslock, R., **Gratton, C.** (in prep, review). The necessity of individual models of brain function and behavior for identifying biomarkers .

2. **Gratton, C***, <u>Dworetsky, A.*</u>, Adeyemo, B., Seitzman. B.A., <u>Smith, D.M.</u>, Petersen, S.E., Neta, M. (in prep) The cinguloopercular network is composed of two distinct sub-systems. (* joint first authorship)

INVITED TALKS

May 2022	Center for Neuromodulation in Depression and Stress, University of Pennsylvania		
Apr 2022	Biomedical Engineering Grad Seminar Series, Penn State University, College State, PA		
Mar 2022	fMRI Brown Bag, Dartmouth College , Hanover, NH		
Nov 2021	Neuroscape Center, University of California San Francisco		
Oct 2021	Neuroimaging Center, The Ohio State University, Columbus, OH, USA		
Aug 2021	Neuro PRISMH, University of Minnesota, Minneapolis, Minnesota, USA		
June 2021	Japanese Meeting for Human Brain Mapping, Seminar Series		
May 2021	Psychology Seminar, University of Illinois, Urbana-Champaign, IL, USA		
May 2021	ABCD ("A Bunch of Control Datablitzes") Joint Lab Meeting, Organizers: Roshan Cools, Tobias Egner, David Badre, & Ross Otto		
Mar. 2021	Psychology: Cognitive Neuroscience Seminar, UT Austin , Austin, TX USA		
Mar. 2021	Neuroscience Seminar, Loyola University , Chicago, IL USA		
Dec. 2020	Psychology Seminar, Florida State University, Tallahasee, FL USA		
Dec. 2020	Dosenbach-Greene Lab Meeting, Washington University in St. Louis , St. Louis, MO USA		
Nov. 2020	C3N Lecture Series, Columbia University , New York, NY, USA		
Nov. 2020	Feindel Brain & Mind Lecture Series, Montreal Neurological Institute, Montreal, QC, CA		
Nov. 2020	Neuroimaging Labs Seminar, Washington University in St. Louis, St. Louis, MO, USA		
Aug. 2020	Centre for Sleep and Cognition, National University of Singapore, Singapore		
June 2020	Brain Networks & Behav Group - Psychology, Indiana University, Bloomington, IN, USA		
May 2020 (X)	Neuroimaging Series - Psychology, University of North Carolina , Chapel Hill, NC, USA X canceled due to COVID-19		
May 2020 (X)	Steve Petersen Festschrift, Washington University in St. Louis , St. Louis, MO, USA X canceled due to COVID-19		
Feb. 2020	Hotchkiss Brain Institute, University of Calgary, Calgary, Alberta, CA		
Feb. 2020	Psychology Department Winter Cognition Workshop, University of Chicago , Chicago, IL, USA		
Dec. 2019	Mathematical & Computational Cog. Sci. Colloquium, Purdue , West Lafayette IN, USA		
Dec. 2018	Psychology Department, Washington University in St. Louis, St. Louis, MO, USA		
Oct. 2018	Functional MRI Speaker Series, University of Michigan , Ann Arbor, MI, USA		
Aug. 2017	Neuroscience Computational Summer School, Dartmouth College , Hanover, NH, USA		
July 2017	Core Outreach Workshop, University of Nebraska-Lincoln , Lincoln, NE, USA		
Jan. 2017	Psychology Department, University of Oregon , Eugene, OR, USA		

Jan. 2017	Psychology Department, Northwestern University , Chicago, IL, USA
Jan. 2017	Brain and Mind Institute, Western University, London, Ontario, Canada
Dec. 2016	Psychological and Brain Sciences, Dartmouth College , Hanover, NH, USA
Oct. 2016	Cognitive Neuroscience Brownbag, University of Illinois , Urbana-Champaign, IL, USA
Oct. 2016	CMRR, University of Minnesota , Minneapolis, MN, USA
Sept. 2016	Psychology Department, University of Toronto, Toronto, Canada
Jan. 2016	Cognition and Neuroscience Seminar, University of Missouri , Columbia, MO, USA
Jan. 2016	Center for Mind & Brain, University of California, Davis, Davis, CA, USA
May 2013	Neuroimaging Laboratories, Washington University in St. Louis , St. Louis, MO, USA
April 2013	Cognitive Neuroscience Brownbag, University of Illinois , Urbana-Champaign, IL, USA
Mar. 2013	Brain Imaging Center Series Talk, University of Texas at Austin , Austin, TX, USA

CONFERENCE PROCEEDINGS

Talks

- (tb) Gratton, C. Gaining 'precision': studying individuals to gain new insights into human brain networks and their role in complex cognition. Invited speaker for Meet-the-Expert series at the **Society for Neuroscience**. San Diego, CA, November 2022.
- Gratton, C. "Common sources of variation in functional brain networks" Speaker in educational symposium on *Dynamic Functional Connectivity*. To be presented at the **Organization for Human Brain Mapping**, Glasgow, Scotland, June, 2022.
- Gratton, C. "Precision fMRI of individual human brain networks" in session on *Connectome based predictions*. Presented at the **Brain Connectivity Workshop**, June 2022.
- Gratton, C. "Insights and Applications of Precision fMRI" in session on Sensitivity and specificity in fMRI studies.

 Presented at the **13**th **Biennial Minnesota Workshop**, October 2021.
- Gratton C. "States and Traits in Functional Networks". Presented at the **ACNN Workshop**, Champaign, IL, September, 2021
- Gratton, C. "Timescales of variation in human functional brain networks." Speaker in educational symposium on *Dynamic Functional Connectivity*. **Organization for Human Brain Mapping**, May 2021.
- Gratton, C. "Characteristics of Individual Differences in Functional Brain Networks". **Social and Affective Neuroscience Society**, April 2021
- Gratton, C. "Precision measurements reveal trait-like variation in human functional brain networks." Speaker in symposium on *Measuring the Individual: Understanding sources of variability in taks and rest*. **Organization for Human Brain Mapping**, Montreal, Canada, June, 2020.
- Gratton, C. "Timescales of variation in human functional brain networks." Speaker in educational symposium on *Dynamic Functional Connectivity*. Presented at the **Organization for Human Brain Mapping**, Montreal, Canada, June, 2020.
- Gratton C. "Trait-like variation in individual brain networks". Presented at the **GUV Annual Meeting**, Indianapolis, IN, October, 2019

- Gratton, C. "Precision measurements reveal stability and individual differences in human functional brain networks."

 Speaker in symposium on *Towards Understanding Individual Variability with Functional Neuroimaging: Big data and deep data perspectives*. Presented at **Cognitive Neuroscience Society**, San Francisco, CA, USA, March, 2019.
- Gratton C. "The dominance of intersubject variability in functional brain networks". Presented at the **American Neurological Association** Annual Conference, Atlanta, GA, USA, October, 2018
- Gratton C. "States and stability in human functional brain networks". Presented at the **Sante Fe Institute, Working Group on Cognitive Regime Shifts** I, Santa Fe, NM, USA, July, 2018
- Gratton C. "Dissecting sources of variance in human functional brain networks". Presented at the **Whistler Scientific Workshop on Brain Functional Organization, Connectivity, and Behavior**, Whistler-Blackcomb, BC,
 Canada, March, 2018
- Gratton C. "Task goals tune brain networks: characterization of contributing factors". Symposium on *Multimodal Functional Cartography: from Connectivity to Cognition*. Presented at **Organization for Human Brain Mapping**, Vancouver, BC, Canada, June, 2017
- Gratton C. "Properties that contribute to functional connectivity differences between task and rest". Nanosymposium on *Human Brain Networks*. **Society for Neuroscience**, Chicago, IL, USA, October 2015
- Gratton, C. "Changes in the magnitude and organization of large-scale network interactions after focal disruption, as measured in humans with resting state fMRI." Speaker in workshop on *The 'Dys-connectome': effects of focal injury on the brain's functional organization and behavior*. Presented at **Organization for Human Brain Mapping**, Hamburg, Germany, June, 2014.

Chair

- Gratton, C. Co-chair of Symposium: *Insights into human cognition from precision fMRI of individuals*. **Cognitive Neuroscience Society**, San Francisco, CA, USA, April, 2022.
- Gratton, C. Co-chair on session on *Modeling and Analysis Variability in Brain Activation*. **Organization for Human Brain Mapping**, Montreal, Quebec, CA, June, 2020. [virtual due to COVID-19]
- Gratton, C. Co-chair of Symposium on *Towards Understanding Individual Variability with Functional Neuroimaging: Big data and deep data perspectives.* **Cognitive Neuroscience Society**, San Francisco, CA, USA, March, 2019.
- Gratton, C. Chair on session on *Connectivity in Cognition and Disease*. Whistler Scientific Workshop on Brain Functional Organization, Connectivity, and Behavior, Whistler-Blackcomb, BC, Canada, March, 2018.

Panels

- Gratton, C. Discussion panel member for session on "Deep neuroimaging data a community perspective". **Brainhack**@ Organization for Human Brain Mapping (OHBM), Virtual, June 2021.
- Gratton, C. Discussion panel member for session on "Highly-sampled individuals & Well-sampled Populations". **International Society of Magnetic Resonance in Medicine (ISMRM)**, Virtual, April 2021.

Posters (<u>underline</u> = trainees)

Perez, D. C., Tran, G., Hernandez, J. J., **Gratton, C.** (abstract) Precision scanning of brain networks in older adults: daily and longitudinal stability. Presented at the *Cognitive Neuroscience Society meeting, April 2022, San Francisco, CA*

- Kong, R., Spring, N., Nickerson, L., Fornito, A., Laird, A., Razi, A., Yendiki, A., **Gratton C.**, Gordon, C., Larson-Prior, L., Cohen, J., Damoiseaux, J., Betzel, R., Eickhoff, S., Sadaghiani, S., Uddin, L., Yeo, B.T.T. (abstract)

 Correspondence across 16 group-level functional brain network atlases. Submitted to the *Organization for Human Brain Mapping, June 2022, Glasgow, UK*
- Ladwig, Z., Seitzman, B. A., Yu, Y., Smith, D. M., Dworetsky, A., Adeyemo, B., Petersen, S. E., **Gratton C.** (abstract)

 BOLD cofluctuation 'events' are predicted from static functional connectivity. Submitted to the *Organization for Human Brain Mapping*, June 2022, Glasgow, UK
- <u>Perez, D.C., Dworetsky, A.,</u> Braga, R.M., Beeman, M, **Gratton, C.** (abstract). Asymmetries of functional network variants suggest hemispheric constraints on individual differences. Submitted to the *Organization for Human Brain Mapping, June 2022, Glasgow, UK*
- Porter, A., Dworetsky, A., Kraus, B.T., Laumann, T.O., Seitzman, B.A., Barch, D., **Gratton, C.** (abstract). A precision fMRI examination of individual differences in brain networks in schizophrenia. Submitted to the *Organization for Human Brain Mapping*, June 2022, Glasgow, UK
- <u>Dworetsky, A., Porter, A., Fei, S., Seitzman, B.A., Adeyemo, B., Cohen, J., D'Esposito, M., Petersen, S.E., **Gratton, C.** (abstract). Individual differences in functional network organization are stable across many years. Submitted to the *Organization for Human Brain Mapping, June 2022, Glasgow, UK*</u>
- <u>Ladwig, Z.,</u> Seitzman, B. A., <u>Yu, Y.,</u> <u>Smith, D. M., Dworetsky, A</u>., Adeyemo, B., Petersen, S. E., **Gratton C.** (abstract) High amplitude co-fluctuations: discrete events or continuous signals?. *Society for Neuroscience*, October 2021. [Virtual due to COVID-19]
- Smith, D. M., Dworetsky, A., Kraus, B. T., Gordon, E. M., **Gratton, C.** (abstract) Bridges or mirages? Connector hubs and inter-subject variation in connectivity profiles. *Society for Neuroscience*, October 2021. [Virtual due to COVID-19]
- <u>Perez, D. C., Dworetsky, A., **Gratton, C.** (abstract). Properties of individual differences in functional connectivity across the hemispheres. *Society for Neuroscience*, October 2021. [Virtual due to COVID-19]</u>
- Uddin, L.Q. Betzel, R. F., Cohen, J. R., Damoiseaux, J. S., De Brigard, F., Eickhoff, S. B., Fornito, A., **Gratton, C**., Gordon, E. M., Laird, A. R., Larson-Prior, L., McIntosh, A. R., Nickerson, L. D., Pessoa, L., Pinho, A. L., Poldrack, R. A., Razi, A., Sadaghiani, S., Shine, J. M., Yendiki, A., Yeo, B. T. T., Spreng, R. T. (abstract) WHATNET: Workgroup for Harmonized Taxonomy of Networks. Submitted to the Organization for Human Brain Mapping, June 2021 [Virtual due to COVID-19].
- Hermosillo, R.J.M., Moore, L.A., Pines, A., Fezcko, E., Conan, G., Mooney, M.A., Randolph, A., Adeyemo, B., Earl, E., Perrone, A., Uriate-Lopez, J., Snider, K., Doyle, O., Cordova, M., <u>Dworetsky, A., **Gratton, C.**</u>, Petersen, S. E., Satterthwaite, T. D., Miranda-Dominguez, O., Fair, D. A. (abstract) Using probabilistic atlases of functional networks in adolescents to improve reliability of group brain-behavior associations. Submitted to *FLUX 2021*
- Yu, Y., Smith, D. M., **Gratton, C.** (abstract) From correlation to communication: decomposing functional connectivity changes. To be presented at the *Organization for Human Brain Mapping, June 2021* [Virtual due to COVID-19]
- <u>Dworetsky, A.</u>, Seitzman, B., Adeyemo, B., Petersen, S., **Gratton, C.** (abstract) Border shifts and ectopic intrusions: two distinct forms of functional network variants in the resting human brain. *Cognitive Neuroscience Society meeting, March 2021* [Virtual due to COVID-19]
- Smith, D. M., Kraus, B. T., Gordon, E.M., **Gratton, C.** (abstract). Individual variation in connector hubs. *Cognitive Neuroscience Society meeting, March 2021* [Virtual due to COVID-19]
- <u>Perez, D. C.,</u> **Gratton, C.** (abstract) Precision scanning of brain networks in older adults. *Cognitive Neuroscience Society meeting, March 2021* [Virtual due to COVID-19]
- Porter, A., Nielsen, A. N., Gratton, C. (abstract) Task network effects are specialized to individuals: lessons from

- machine learning applied to precision fMRI. Cognitive Neuroscience Society meeting, March 2021 [Virtual due to COVID-19] #selected for Data Blitz Presentation
- Nielsen, A., **Gratton, C.**, Rogers, C., Smyser, C., Wakschlag, L., Norton, E. (abstract). Investigating whether dissociable types of hubs integrate brain function in infants. *Presented at the Flux Congress for Developmental Cognitive Neuroscience*, September, 2020 [Virtual, due to COVID-19]
- Gordon, EM, Laumann, TO, Marek, S, **Gratton, C**, Gilmore, AW, Newbold, DJ, Greene, DJ, Snyder, AZ, Schlaggar, BL, Dosenbach, NUF, Nelson, SM. Default brain networks of individual humans exhibit fine-grained subnetwork structure (abstract). *Presented at the Organization for Human Brain Mapping, June, 2020.* [Virtual, due to COVID-19
- <u>Kraus, B</u>, Seitzman, BA, Dworetsky, A, Petersen, SE, **Gratton, C**. Stability of individual variations in functional connectivity across states (abstract). *Presented at Society for Neuroscience, October 2019*.
- Seitzman, BA, Lessov-Schlaggar, CN, Adeyemo, B, Dworetsky, A, <u>Kraus, BT</u>, Petersen, SE, **Gratton, C**. Heritability of individual variant sub-types in functional brain networks (abstract). *Presented at Society for Neuroscience, October 2019*.
- Dworetsky, A, Seitzman, BA, Adeyemo, B, Neta, M, Coalson, RS, Petersen, SE, **Gratton, C**. Probabilistic mapping of human functional brain networks identifies regions of high inter-subject consensus (abstract). *Presented at Society for Neuroscience, October 2019*.
- Marek, S, Greene, DJ, Siegel, JS, Gordon, EM, **Gratton, C**, Newbold, DJ, Ortega, M, Laumann, TO, Miller, DB, Zheng, A, Lopez, KC, Berg, JJ, Coalson, RS, Nguyen, AL, Dierker, D, Van, AN, Hoyt, CR, McDermott, KB, Norris, SA, Shimony, JS, Snyder, AZ, Nelson, SM, Barch, DM, Schlaggar, BL, Raichle, ME, Petersen, SE, Dosenbach, NUF. (abstract) Precision functional mapping of the individual human subcortex reveals integrative and network-specific functional zones. *Presented at the Organization for Human Brain Mapping, June 2019*.
- Gordon, E.M., Laumann, T.O., Snyder, A.Z., **Gratton, C.**, Petersen, S.E., Dosenbach, N.U.F., Nelson, S.M. (abstract) Multiple separable factors influence the reliability of resting-state functional connectivity in individual humans. *Presented at the Organization for Human Brain Mapping, June 2019*
- **Gratton, C**, Coalson, R., Dworetsky, A., Adeyemo, B., Barch, D., Tranel, D., Miranda-Dominguez, O., Fair, D., Dosenbach, N.U.F., Snyder, A.Z., Perlmutter, J.S., Petersen, S.E., Campbell, M.C. (abstract) High frequency contamination of motion estimates in single-band fMRI. *Presented at the Organization for Human Brain Mapping, June 2019*
- Gordon, EM, Lynch, CJ, **Gratton, C**, Laumann, TO, Gilmore, AW, Greene, DJ, Ortega, M, Nguyen, AL, Schlaggar, BL, Petersen, SE, Dosenbach, NUF, Nelson, SM. Three distinct sets of connector hubs integrate human brain function. *Society for Neuroscience, October 2018*.
- Kong, TS, **Gratton, C**, Low, KA, Tan, CH, Chiarelli, AM, Fletcher, MA, Zimmerman, B, Maclin, E, Gratton, G, Fabiani, M. Giving a sign to functional connectivity: its relationship to age, arterial elasticity, and white matter integrity (abstract). *Society for Psychophysiological Research, September 2018*.
- Nielsen, AN, Church, JA, **Gratton, C**, Dosenbach, NUF, Petersen, SE, Black, KA, Schlaggar, BL, Greene, DJ. Functional connectivity indicates distinct developmental trajectories of motor function and inhibitory control in Tourette Syndrome. *Flux Congress, September 2018*.
- **Gratton, C**, Koller, JM, Shannon, W, Greene, DG, Petersen, SE, Perlmutter, JS, Campbell, MC. Functional connectivity deficits in Parkinson Disease (abstract). *Society for Neuroscience, November 2017*
- Laumann TO, Gordon EM, Gilmore AW, Newbold DJ, Greene DJ, Berg JJ, Ortega M, Hoyt-Drazen C, **Gratton C**, Sun H, Hampton JM, Coalson RS, Nguyen A, McDermott KB, Shimony JS, Snyder AZ, Schlaggar BL, Petersen SE, Nelson SM, Dosenbach NUF. Precision functional mapping of individual human brains (abstract). *Society for Neuroscience, November 2017*

- Seitzman, BA, **Gratton C**, Schlaggar BL, Petersen SE, Greene DJ. An expanded set of regions of interest for functional network analysis: improved representation of the subcortex and cerebellum (abstract). *Society for Neuroscience, November 2017*
- Newbold DJ, Laumann TO, Ortega M, Hoyt-Drazen C, Coalson RS, Nguyen A, Hampton J, Neilsen A, Nelson SM, Gilmore AW, Berg JJ, Greene DJ, Gordon EM, **Gratton C**, Schlaggar BL, Petersen SE, Mitra A, Raut R, Snyder AZ, Dosenbach NUF (abstract). High-fidelity individual-subject resting state connectivity and task functional MRI demonstrate neuroplasticity induced by two weeks of upper extremity immobilization. To be presented at *Organization for Human Brain Mapping, June 2017*
- Lurie, D., Tambini, A., **Gratton, C.**, Poline, J.B., D'Esposito, M. Effects of continuous theta-burst transcranial magnetic stimulation on hemodynamic lag (abstract). Presented at *Society for Neuroscience, November 2016*.
- Campbell, M.C., **Gratton, C.**, Koller, J.M., Shannon, W., Lessov-Schlaggar, C.A., Petersen, S.E., Perlmutter, J.S. Functional connectivity differences across Parkinson disease subtypes (abstract). Presented at *Society for Neuroscience, November 2016*.
- Silver, M.A., **Gratton, C.**, Yousef, S., Aarts, E., Wallace, D.L., D'Esposito, M. Cholinergic, but not dopaminergic or noradrenergic, enhancement sharpens behavioral spatial tuning (abstract). *Society for Neuroscience, October 2015*.
- **Gratton C**, Laumann, TO, Gordon, EM, Adeyemo, B, Petersen SE. Properties that contribute to functional connectivity differences between task and rest (abstract). *Society for Neuroscience, October 2015.*
- Greene DJ, Church JA, Dosenbach NUF, Adeyemo B, **Gratton C**, Laumann TO, Nielsen A, Shannon W, Petersen SE, Black KJ, Schlaggar BL. Innovative methods increase sensitivity for detecting functional brain differences in Tourette syndrome (abstract). *Word Congress on Tourette Syndrome & Tic Disorders, 2015*.
- **Gratton C**, Laumann, TO, Gordon, EM, Adeyemo, B, Petersen SE. Network properties associated with task-based changes in functional connectivity (abstract). *Presented at Cognitive Neuroscience Society, March 2015.*
- **Gratton C**, D'Esposito M. Focal lesions lead to functional plasticity in the roles of individual brain regions within large-scale networks (abstract). *Presented at Society for Neuroscience, November 2013*.
- Sreenivasan, KK, **Gratton C**, D'Esposito M. Mechanisms of attention in early visual cortex revealed with multivariate fMRI analysis (abstract). *Society for Neuroscience, November 2013*.
- Gallen, CL, **Gratton C**, Turner, GR, D'Esposito M. Changes in functional brain network organization after cognitive rehabilitation in older adults (abstract). *Society for Neuroscience, November 2013*.
- **Gratton C**, Lee, T., Nomura, EM., D'Esposito M. The effect of theta-burst TMS on cognitive control networks. Society for Neuroscience (abstract). *Presented at Society for Neuroscience, October 2012*
- Cohen, JR., **Gratton C**, D'Esposito M. Variability in brain modularity is related to variability in behavior. Society for Neuroscience (abstract). *Society for Neuroscience, October 2012*
- Gallen, C., **Gratton C**, Nomura, EM., D'Esposito M. Changes in the modular organization of the brain in healthy aging. Society for Neuroscience (abstract). *Society for Neuroscience, October 2012*
- Begany, KL, Nomura, EM., **Gratton C**, Chen, AJW, D'Esposito M. Individual differences in response of brain injury patients to cognitive rehabilitation: evidence from analyses of functional brain networks. Society for Neuroscience (abstract). *Society for Neuroscience, October 2012*
- **Gratton C**, Sreenivasan, K.K., Silver, M., D'Esposito M. Effects of feature-based attention on voxel tuning curves for individual faces. Vision Science Society (abstract). *Presented at Vision Science Society Conference, May 2012*
- Gallen, C., Nomura, EM., **Gratton C**, D'Esposito M. Changes in local and global brain organization in healthy aging. Cognitive Neuroscience Society (abstract). *Cognitive Neuroscience Society Meeting, March 2012*

- Begany, KL, Nomura, EM., **Gratton C**, Chen, AJW, Novakovic-Agopian, T, D'Esposito M. Predicting the response of patients with brain injury to cognitive rehabilitation. Cognitive Neuroscience Society (abstract). *Cognitive Neuroscience Society Meeting, March 2012*
- **Gratton C**, Sreenivasan, K.K., Silver, M., D'Esposito M. Effects of feature-based attention on voxel tuning curves for individual faces. Society for Neuroscience (abstract). *Presented at Society for Neuroscience, November 2011*
- **Gratton C**, Nomura, EM, Perez, F., D'Esposito M. Changes in Modular Strength and Structure Following Focal Brain Lesions. Neuroimage (abstract). *Presented at Human Brain Mapping, June 2011*
- Nomura EM, **Gratton C**, Perez, F., D'Esposito M. Changes in the Composition of Modules Following Focal Brain Lesions. Neuroimage (abstract). *Human Brain Mapping, June 2011*
- Blumenfeld, R., Nomura EM, **Gratton C**, Bliss, D, D'Esposito M. Distinct dorsal and ventral lateral prefrontal networks evident in resting-state connectivity. Neuroimage (abstract). *Human Brain Mapping, June 2011*
- Sreenivasan, K. K., **Gratton, C.**, Vytlacil, J., D'Esposito, M. Contributions of basal ganglia, prefrontal cortex, and extrastriate cortex to visual working memory maintenance. Cognitive Neuroscience Society (abstract). *Cognitive Neuroscience Society Meeting, April, 2011*
- Nomura EM, **Gratton C**, Lee T, Yousef S, D'Esposito M. Top-down modulation of category selective visual association cortex using theta-burst TMS. Society for Neuroscience (abstract). *Society for Neuroscience Meeting, November 2010*
- Sreenivasan, K. K., **Gratton, C.**, D'Esposito, M. Contributions of prefrontal and extrastriate cortex to visual working memory maintenance. Society for Neuroscience (abstract). *Society for Neuroscience Meeting, November, 2010*
- Moberget, T., Nomura, E. M., **Gratton**, C., Endestad, T., Lundar, T., Due-Tønnesen, B., Andersson, S. Heldal, A., D'Esposito M. Focal cerebellar lesions affect the functional connectivity of cerebral resting-state networks. Society for Neuroscience (abstract). *Society for Neuroscience Meeting, November 2010.*
- **Gratton**, C., Nomura, E.M., Perez, F., D'Esposito, M. (2010). Lesions to dIPFC and OFC have dissociable effects on distal cortical network properties. *Neuroimage* (abstract). *Presented at the Organization of Human Brain Mapping Meeting, June 2010*.
- Nomura, EM, **Gratton**, C., Perez, F., D'Esposito, M. (2010) Dissociable Effects of Focal Brain Lesions on Cognitive Control Networks. *Neuroimage* (abstract). *Presented at the Organization of Human Brain Mapping Meeting, June 2010.*
- Nomura, E.M., Visser, R.M., **Gratton**, C., D'Esposito, M. (2009). Altered resting state functional connectivity following focal brain lesions: support for the dual networks hypothesis of top-down control. *Society for Neuroscience* (abstract). *Presented at the Society for Neuroscience Meeting, October 2009*.
- Turner, G.R., Nomura, E.M., Turken, A.U., Visser, R.M., **Gratton**, C., D'Esposito, M. (2009). Structural alterations in resting state networks following focal brain lesions. *Society for Neuroscience* (abstract). *Society for Neuroscience Meeting, October 2009*.
- Nomura, E.M., **Gratton**, C., D'Esposito, M. (2009). Effect of r-TMS on coherence of resting State networks. *NeuroImage* (abstract). *Presented at the Organization for Human Brain Mapping Meeting, June 2009*
- **Gratton**, C., Laszlo, S., Federmeier, K. D. (2008). In whole or in part? An ERP analysis of global/local processing asymmetries with naturalistic objects. *Psychophysiology*, 45, S70 (abstract). *Presented at the Society for Psychophysiological Research Meeting, October 2008*
- **Gratton**, C., Evans, K. M., Federmeier, K. D. (2007). Generalizing Knowledge: ERPs reveal the time-course of retrieval of novel categories. *Psychophysiology*, 44, S61 (abstract). *Presented at the Society for Psychophysiological Research Meeting*, *October 2007*

Gratton, C., Evans, K. M., Federmeier, K. D. (2006). ERPs reveal the acquisition and retrieval of information about novel objects. Psychophysiology, 43, S43 (abstract). Presented at the Society for Psychophysiological Research Meeting, October 2006

TEACHING AND MENTORING

Psych 470: Topics in BBC: fMRI methods and analysis	Northwestern University	Winter 2019, Spring 2021
Psych 221: Introduction to Neuroscience	Northwestern University	Sp 2019, 2020, 2021, Wi 2022
Psych 470: Topics in BBC: Neural basis of control	Northwestern University	Fall 2019

Graduate Instructor

Psych 117: Human Neuropsychology	UC Berkeley	Spring 2011	Supervisor: Prof. Bob Knight
MCB 61: Brain, Mind, and Behavior	UC Berkelev	Sprina 2010	Supervisor: Dr. David Presti

Guest Lectures

Psych 117: Human Neuropsychology	UC Berkeley	Spring 2011	Topic: TMS & Optical Imaging
Psych 214: fMRI Methods	UC Berkeley	Fall 2011	Topic: Graph theory & fMRI
Psych 214: fMRI Methods	UC Berkeley	Fall 2012	Topic: Graph theory & fMRI
Psych 3604: Cognitive Neuroscience	WUSTL	Fall 2014	Topic: Functional Connectivity
Psych 3604: Cognitive Neuroscience	WUSTL	Fall 2015	Topic: Functional Connectivity
MBB120A: Intro to Mind, Brain,& Beh	v WUSTL	Fall 2017	Topic: Lesion studies
Psych 3604: Cognitive Neuroscience	WUSTL	Fall 2018	Topic: Functional Connectivity
ACCSN: Cog, Comp,& Sys Neuro Sen	n WUSTL	Fall 2018	Topic: Functional Connectivity
Psych 401: BBC proseminar	Northwestern	Fall 2018	Topic: Cognitive Control
Psych 401: BBC proseminar	Northwestern	Fall 2019	Topic: Cognitive Control
Cog Psy 366: Cog Psy proseminar	Northwestern	Fall 2019	Topic: Control Networks
Psych 401: BBC proseminar	Northwestern	Fall 2020	Topic: Cognitive Control
Cog Psy 366: Cog Psy proseminar	Northwestern	Winter 2021	Topic: Control Networks

Summer Courses (invited instructor)			
Core Outreach Workshop	University of Nebraska-Lincoln	July 2017	
MIND Summer School	Dartmouth College	August 2017	
Neurohackademy	University of Washington	July 2019, July 2021, July 2022	
NU fMRI summer series	Northwestern University	July 2021	

Mentoring

Grad	uate	Stud	ents

Brian Kraus	Northwestern (Psychology)	2018 - present
Alexis Porter	Northwestern (Psychology)	2019 - present
Diana Perez	Northwestern (Psychology)	2019 - present
Zach Ladwig	Northwestern (NUIN)	2020 - present

Postdoctoral Researchers

Derek Smith	Northwestern	2019 - 2021

Now: Research Faculty, Johns Hopkins

Research Assistants

Megan Dorn	Northwestern	2018 - 2022
Ally Dworetsky	Northwestern	2020 - present

Joanna Hernandez	Northwestern	2021 - 2022
Nathan Labora	Florida State University	2022 - present
Gretchen Wulfekuhle	Florida State University	2022 - present
Undergraduate Researchers		
Sahar Yousef	UC Berkeley	2010 - 2012
Antony LaBarbera	UC Berkeley	2010 - 2011
Jeff Defond	UC Berkeley	2012
Mehrnaz Ahrar	UC Berkeley	2012
Jahlela Hasle	UC Berkeley	2012
Sanjana Ramesh	WUSTL	2016 - 2017
Ally Dworetsky	WUSTL	2018
Heili Duffin	NU (Neuro)	2019 - 2020
Imani Bah	NU (Neuro)	2019
Jennifer Pius-Alonee	NU (Neuro, summer fellow)	2019 - 2021
Brittany Henry	NU (Neuro, summer fellow)	2019 - 2020
Shawn Ohazuruike	NU (Dartmouth SROP fellow)	2019
Gabriella Tran	NU (Neuro, Honors Thesis)	2019 - 2022
Yulan Chen	NU (Psych)	2019 - 2020
Meredith Hiller	NU (Neuro)	2019
Lisa Calegari	NU (Neuro)	2020
Camila Grisanti	NU (Neuro)	2021
Maddie Banich	NU (Neuro)	2021
Ariana Fei	NU (Neuro, Statistics)	2021 - present
Chloe McGhee	NU (Neuro)	2021 - 2022
Elena Housteau	NU (Neuro)	2021 - present
Lauren Risenhoover	NU (Neuro)	2022
Dissertation Committees		
Ben Reuveni	Northwestern (Psychology)	2019-2020
Joey Salvo	Northwestern (NUIN)	2022-present
Gwen van der Wijk	Univ of Calgary (external member)	2022
•	com congary (concerner memory)	
Qualifying Exam Committees	N	0000
Brian Kraus	Northwestern (Psychology)	2022
Zach Ladwig	Northwestern (NUIN)	2021
Joseph Salvo	Northwestern (NUIN)	2021
Alexis Porter	Northwestern (Psychology)	2022
Diana Perez	Northwestern (Psychology)	2022
Yuhua Yu	Northwestern (Psychology)	2022
Masters Thesis Committees		
Brian Kraus	Northwestern (Psychology)	2020
Alexis Porter	Northwestern (Psychology)	2021
Diana Perez	Northwestern (Psychology)	2021

EDITORIAL SERVICE & REVIEW

Editorial Service

2018 - present	Associate Editor , Network Neuroscience
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2020-2021 **Issue Editor**, *Current Opinion in Behavioral Sciences*, special issue on: Deep Imaging 2021 - present **Editorial Board**, *Aperture* (open access, Organization for Human Brain Mapping)

Adhoc Review

Nature, PNAS, Neuron, Nature Neuroscience, Nature Communications, Nature Protocols, Cell Reports, Science Advances, ELife, Cerebral Cortex, Journal of Neuroscience, Neuroimage, Neurobiology of Aging, Journal of Cognitive Neuroscience, Psychophysiology, Developmental Science, Network Neuroscience, Human Brain Mapping, PLOS ONE, Brain and Cognition, Frontiers in Perception Science, Frontiers in Human Neuroscience, Child Development, Neuroscience, Schizophrenia Bulletin, Schizophrenia Research

PROFESSIONAL AND PUBLIC SERVICE

Professional affiliations

Human Brain Mapping, Society for Neuroscience, Cognitive Neuroscience Society, Vision Science Society, Society for Psychophysiological Research, Association for Psychological Science

Departmental Service

Northwestern Psychology Department, Personnel Committee	2019 - 2021
Northwestern Psychology Department, Kitchen Cabinet	2021- present
CBMG Weekly Seminar Series, Speaker Organizing Committee	2020 - present

Non-departmental University Service

Northwestern Neuro Center for Translational Imaging (CTI) Advisory Committee	2020 - present
Northwestern Cognitive Neuroscience Preceptor Committee	2020 - present
Northwestern Neuroscience (NUIN) Curriculum Committee	2021 - present
Northwestern DevSci - Professional Development Panel	2019
CFAR Pilot grant Review	2021

Grant/Fellowship Review

National Defense Science and Engineering Graduate (NDSEG) fellowship review	2016-2018
NSF grant panel	2018, 2021
NSERC Discovery Grant, Biological Systems & Function, External Reviewer	2019
NSF Graduate Research Fellowship Program (GRFP) fellowship review	2020
Cambridge University, Churchill College Early Career Research Fellowship reviewer	2020
Marsden Fund Council, external reviewer	2021
ISF, external review	2022
NIMH K99/R00 ad-hoc review	2022

External and Professional Service

OHBM Best Practices in Large Scale Brain Network Nomenclature Committee	2020 - present
Univ of Michigan NICHD Training Grant - Methods panel discussion	2020

Public Outreach

UIUC Engineering & Beckman Open House, booth/lab presenter	2008-2012 (2x)
Oakland Girls Go Teach, Neuroscience booth at Girl Scout science & engineering event	2009 (1x)
Mind & Brain Night, Booth presenter at Berkeley Neuro outreach events at local schools	2009-2013 (4x)
WUSTL Middle School Summer Challenge - Laboratory presentation	2015-2016 (4x)

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Northwestern Psychology Sneak Peak (faculty panel, application review)	2019-2022 (3x)
Mesulam Center Alzheimer's Disease Day - Research short presentation	2020
Chicago Science Fest (funding, public speaker recruitment)	2022
OHBM Neurosalience podcast - panelist speaker	2022