ROGERS F SILVA

Albuquerque, NM, USA • (505) 504-3031 • Email: rogers.f.silva@gmail.com

PUBLICATION LIST

Journal

[1] **R.F. Silva**, S.M. Plis, T. Adalı, M.S. Pattichis, V.D. Calhoun, "Multidataset Independent Subspace Analysis," IEEE Trans Image Process, 2018. (in prep.)

[2] S. Qi, J. Sui, J. Chen, J. Liu, R. Jiang, **R. Silva**, A. Iraji, E. Damaraju, M. Salman, D. Lin, Z. Fu, D. Zhi, J. Bustillo, J.A. Turner, D.H. Mathalon, J.M. Ford, J. Voyvodic, B.A. Mueller, A. Belger, S. McEwen, S.G. Potkin, A. Preda, V.D. Calhoun, "Parallel Group ICA + ICA: Joint Estimation of Linked Functional Network Variability and Structural Covariation with Application to Schizophrenia," IEEE Trans Med Imaging, 2018. (submitted)

[3] B.T. Baker, A. Abrol, **R.F. Silva**, E. Damaraju, A.D. Sarwate, V.D. Calhoun, S.M. Plis "Decentralized Temporal Independent Component Analysis: Leveraging fMRI Data in Collaborative Settings," NeuroImage, 2018. In Press.

[4] H. Gazula, B.T. Baker, E. Damaraju, S.M. Plis, S.R. Panta, **R.F. Silva**, V.D. Calhoun, "Decentralized Analysis of Brain Imaging Data: Voxel-based Morphometry and Dynamic Functional Network Connectivity," Front Neuroinform, vol 12, p 55, 2018

[5] J. Ming, E. Verner, A. Sarwate, R. Kelly, C. Reed, T. Kahleck, **R.F. Silva**, S. Panta, J. Turner, S.M. Plis, V.D. Calhoun, "COINSTAC: Decentralizing the future of brain imaging analysis," F1000 Research, eCollection, 2017, PMID: 29123643.

[6] **R.F. Silva**, S.M. Plis, J. Sui, M.S. Pattichis, T. Adalı, V.D. Calhoun, "Blind Source Separation for Unimodal and Multimodal Brain Networks: A Unifying Framework for Subspace Modeling," IEEE JSTSP, vol. 10 (7), pp.1134-1149, 2016.

[7] D.A. Bridwell, S.Rachakonda, **R.F. Silva**, G.D. Pearlson, V.D. Calhoun, "Spatiospectral decomposition of multi-subject EEG: evaluating blind source separation algorithms on real and realistic simulated data," Brain Topography, pp. 1-15, 2016. PMID: 26909688

[8] S. Rachakonda, **R.F. Silva**, J. Liu, "Memory efficient PCA methods for large group ICA," Frontiers in Neuroscience, Brain Imaging Methods, vol. 10, p.17, 2016.

[9] V.D. Calhoun, **R.F. Silva**, T. Adalı, S. Rachakonda, "Comparison of PCA approaches for very large group ICA," in NeuroImage, vol. 118, pp. 662-666, 2015.

[10] **R.F. Silva**, S.M. Plis, T. Adali, V.D. Calhoun, "A statistically motivated framework for simulation of stochastic data fusion models applied to multimodal neuroimaging," NeuroImage, vol. 102 Pt 1, pp. 92-117, 2014.

[11] V.D. Calhoun, V. Potluru, R. Phlypo, **R.F. Silva**, B. Pearlmutter, A. Caprihan, S.M. Plis, T. Adalı, "Independent component analysis for brain fMRI does indeed select for maximal independence," PLoS ONE, vol. 8, 2013.

[12] E. Allen, E. Erhardt, E. Damaraju, W. Gruner, J. Segall, **R.F. Silva**, M. Havlicek, S. Rachakonda, J. Fries, R. Kalyanam, A. Michael, J. Turner, T. Eichele, S. Adelsheim, A. Bryan, J. R. Bustillo, V. P. Clark, S. Feldstein, F. M. Filbey, C. Ford, K. Hutchison, R. Jung, K. A. Kiehl, P. Kodituwakku, Y. Komesu, A.R. Mayer, G.D. Pearlson, J. Phillips, J. Sadek, M. Stevens, U. Teuscher, R.J. Thoma, V.D. Calhoun, "A baseline for the multivariate comparison of resting state networks," Frontiers in Systems Neuroscience, vol. 5, p. 12, 2011.

Book Chapter

[1] **R.F. Silva**, S.M. Plis, "How to integrate data from multiple biological layers in mental health?," in Personalized and Predictive Psychiatry - Big Data Analytics in Mental Health, Ed.1, Springer-Nature, 2018. In Press.

Conference

[1] K. Duan, **R.F. Silva**, J. Chen , D. Lin, V. D. Calhoun, J. Liu, "Sparse Infomax based on Hoyer Projection and its application to simulated structural MRI and SNP data," in Proc. IEEE ISBI 2018. (submitted)

[2] M. Yaesoubi, **R.F. Silva**, V.D. Calhoun, "In-between and cross-frequency dependence-based summarization of resting-state fMRI data," in Proc. IEEE SSIAI 2018, pp. 93-96, Las Vegas, NV, 2018.

[3] N.P. Wojtalewicz, **R.F. Silva**, V.D. Calhoun, A.D. Sarwate, S.M. Plis, "Decentralized Independent Vector Analysis," in Proc. IEEE ICASSP 2017, New Orleans, LA, 2017.

[4] H. Imtiaz, A.D. Sarwate, B. Baker, **R.F. Silva**, S.M. Plis, V.D. Calhoun, "Differentially private source separation for distributed data using independent component analysis," in Proc. IEEE CISS 2016, Princeton, NJ, 2016.

[5] B.T. Baker, **R.F. Silva**, V.D. Calhoun, A.D. Sarwate, S.M. Plis, "Large scale collaboration with autonomy: decentralized data ICA," in Proc. IEEE MLSP 2015, Boston, MA, 2015.

[6] **R.F. Silva**, S.M. Plis, T. Adalı, and V.D. Calhoun, "Multidataset Independent Subspace Analysis Extends Independent Vector Analysis," in Proc. IEEE ICIP 2014, Paris, France, 2014.

[7] **R.F. Silva**, E. Castro, N. Gupta, M. Cetin, M. Arbabshirani, V. Potluru, S.M. Plis, and V.D. Calhoun, "The Tenth Annual MLSP Competition: Schizophrenia Classification Challenge," in Proc. IEEE MLSP 2014, Reims, France, 2014.

[8] E.A. Allen, E.B. Erhardt, E. Damaraju, W. Gruner, J.M. Segall, **R.F. Silva**, M. Havlicek, S. Rachakonda, J. Fries, R. Kalyanam, A.M. Michael, A. Caprihan, J.A. Turner, T. Eichele, S. Adelsheim, A. Bryan, J. Bustillo, V.P. Clark, S. Feldstein-Ewing, F.M. Filbey, C. Ford, K. Hutchison, R.E. Jung, K.A. Kiehl, P. Kodituwakku, Y. Komesu, A.R. Mayer, G.D. Pearlson, J. Phillips, J. Sadek, M. Stevens, U. Teuscher, R.J. Thoma, and V.D. Calhoun, "A baseline for the multivariate comparison of resting state networks," in Biennial Conference on Resting State / Brain Connectivity, Milwaukee, WI, 2010.

[9] **R.F. Silva** and V.D. Calhoun, "Identification of Brain Image Biomarkers by Optimized Selection of Multimodal Datasets," in Proc. ISMRM 2008, Toronto, Canada, 2008.

[10] **R.F. Silva** and V.D. Calhoun, "Identification of Brain Imaging Biomarkers by Optimized Selection of Multimodal Independent Components," in Proc. IEEE SSIAI, Santa Fe, NM, 2008.

[11] V.D. Calhoun, **R.F. Silva**, and J. Liu, "Identification of Multimodal MRI and EEG Biomarkers Using Joint-ICA and Divergence Criteria," in Proc. IEEE MLSP 2007, Thessaloniki, Greece, 2007.

Abstract

[1] M. Yaesoubi, **R.F. Silva**, V.D. Calhoun, "In-between and cross-frequency dependence-based summarization of resting-state fMRI data," in Proc. OHBM, Singapore, 2018.

[2] **R.F. Silva**, S.M. Plis, M.S. Pattichis, T. Adali, V.D. Calhoun. "Incorporating Second-Order Statistics in Multidataset Independent Subspace Analysis," in Proc OHBM, Honolulu, HI, 2015.

[3] **R.F. Silva**, S.M. Plis, T. Adalı, and V.D. Calhoun, "Multidataset Independent Subspace Analysis," in Proc. OHBM, Hamburg, Germany, 2014.

[4] **R.F. Silva** and V.D. Calhoun, "A Statistically Motivated Simulation Framework for Data Fusion Models Applied to Neuroimaging," in Proc. OHBM, Seattle, WA, 2013.

[5] V.D. Calhoun, V. Potluru, R. Phlypo, **R.F. Silva**, B. Pearlmutter, A. Caprihan, S.M. Plis, and T. Adalı, "Independent component analysis for brain fMRI does indeed select for maximal independence," in Proc. OHBM, Seattle, WA, 2013.

[6] **R.F. Silva** and V.D. Calhoun, "An Assessment of the Limitations of Joint ICA in Multimodal Data Fusion," in Proc. OHBM, Beijing, China, 2012.

[7] **R.F. Silva** and V.D. Calhoun, "Validating Divergence as a Tool for Assessment of Group Differences in a JICA Fusion Framework," in Proc. OHBM, Quebec-City, CA, 2011.

[8] **R.F. Silva** and V.D. Calhoun, "Evaluating Joint Histograms in a JICA Fusion Framework: Feature Extraction and Component Selection," in Proc. OHBM, Barcelona, Spain, 2010.

[9] **R.F. Silva** and V.D. Calhoun, "Divergence Measurements for the Optimal Identification of Multimodal Biomarkers," in Proc. OHBM, San Francisco, CA, 2009.

[10] **R.F. Silva**, J.G. Silveira, R. Balbinot, "Plataforma DeskEaD para Aplicações de Educação a Distância (DeskDE Platform for Distance Education Applications)," in Proc. 4th RNP2 Workshop, 2003, Catholic University (PUCRS), Porto Alegre, Brazil.

REFERENCES

Vince D. Calhoun, Ph.D.
President
The Mind Research Network
&
Distinguished Professor of Electrical and Computer Engineering (primary), Biology, Computer Science, Neurosciences, & Psychiatry
The University of New Mexico
Tel: (505) 272-1817, Fax: (505) 272-8002
Email: vcalhoun@mrn.org

Tülay Adalı
Distinguished Professor
Computer Science and Electrical Engineering
University of Maryland Baltimore County
Email: adali@umbc.edu

Marios S. Pattichis, Ph.D.
Professor
Computer Engineering Program Chair
The University of New Mexico
Tel: (505) 277-0486
Email: pattichis@ece.unm.edu

Sergey M. Plis, Ph.D.
President
Reason8, Inc.
&
Principal Member of Technical Staff
Data Science Team, Athenahealth, Inc.
Email: s.m.plis@gmail.com