

## Sparsity Publications

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August 2020.

### JOURNAL PAPERS

2000s

- (1) MO Ulfarsson and V Solo, Dimension estimation in noisy PCA with SURE and Random Matrix Theory. *IEEE Trans Signal Processing* (2008), 56, pp 5804-5816 .
- (2) MO Ulfarsson, and V Solo, Sparse variable PCA using Geodesic Steepest Descent *IEEE Trans Signal Processing* (2008), 56 pp 5823-5832.

2010s

- (3) M Ulfarsson and V Solo, Vector l<sub>0</sub> Sparse Variable PCA, *IEEE Trans. Sig. Proc.*, (2011), 59, pp 1949-1958.
- (4) G. Marjanovic and V, Solo, On l<sub>q</sub> Optimization and Matrix Completion, *IEEE Trans. Sig. Proc.*, (2012),60, pp 5714 - 5724.
- (5) G. Marjanovic and V. Solo, l<sub>q</sub> Sparsity Penalized Linear Regression with Cyclic Descent, *IEEE Trans. Sig. Proc.*, (2014),62, pp 1464-1475.
- (6) G Marjanovic and V Solo, On l<sub>q</sub> Optimization and Sparse Inverse Covariance Selection, *IEEE Trans. Sig. Proc.*, (2014),62, pp 1644-1654.
- (7) B. Cassidy, C. Rae, V. Solo, Brain Activity: Connectivity, Sparsity, and Mutual Information, *IEEE Trans, Med. Imaging*, 34, pp 846-860, 2015.
- (8) B. Cassidy, V. Solo, Spatially sparse, temporally smooth MEG via vector l<sub>0</sub>. *IEEE Trans. Med. Imaging*, 34, pp 1282-1293, 2015.

### IEEE REFEREED CONFERENCE PAPERS

2000s

- (1) Ulfarsson M, Solo V, Sparse variable Principal component analysis with application to fMRI. *Proc IEEE Int Symposium on Biomedical Imaging*, pp 460-463, Washington DC, USA, April 2007.
- (2) Solo V, A modified Clean algorithm does l<sub>1</sub>-denoising. *Proc IEEE ICASSP 2008*, pp3665-3668, Las Vegas, NV , April 2008.
- (3) Ulfarsson M and Solo V, Rank selection in noisy PCA with SURE and Random Matrix Theory. *Proc IEEE ICASSP 2008*, pp 3317-3320, Las Vegas, NV April 2008.
- (4) MO Ulfarsson and V Solo, Sparse variable PCA using a steepest descent on a Grassman manifold, *Proc IEEE ICASSP, Taipei, Taiwan*, pp 3253-3256 , April 2009.

2010s

- (5) V Solo and MO Ulfarsson, Threshold Selection for Group Sparsity, *Proc IEEE ICASSP, Dallas Texas*, pp 3754-3757, March 2010.
- (6) G Marjanovic and V Solo, Sparse Signal Estimation with Nonlinear Conjugate Gradients, *Proc IEEE ICASSP, Dallas Texas*, pp 3766-3769, March 2010.
- (7) MO Ulfarsson and V Solo, Sparse variable noisy PCA using l<sub>0</sub> penalty, *Proc IEEE ICASSP, Dallas Texas*, pp 3950-3953, March 2010.
- (8) G Marjanovic and V Solo , l<sub>0</sub> Sparse Graphical Modeling , *Proc IEEE ICASSP, Prague*, p 2084-2087 , May 2011.
- (9) M Ulfarsson and V Solo , Sparse Variable Reduced Rank Regression via Stiefel Optimization , *Proc IEEE ICASSP, Prague*, p 3892-3895 , May 2011.
- (10) G Marjanovic and V Solo, l<sub>q</sub> Matrix Completion, *Proc IEEE ICASSP, Kyoto, Japan*, pp 3885-3888, March 2012.
- (11) A Seneviratne and V Solo, On Vector l<sub>0</sub> Penalized Multivariate Regression, *Proc IEEE ICASSP, Kyoto, Japan*, pp 3613-3619 , March 2012.
- (12) M Ulfarsson and V Solo, Sparse loading noisy PCA using an l<sub>0</sub> penalty, *Proc IEEE ICASSP, Kyoto, Japan*, pp 3597-3600, March 2012.

- (13) B Cassidy and V Solo and A Seneviratne, Grouped  $l_0$  Least Squares Penalized Magnetoencephalography, Proc IEEE ISBI (International Symposium on Biomedical Imaging), Barcelona, pp 868-871, May 2012.
- (14) A.J. Seneviratne and V Solo, Sparse Coloured System Identification with Guaranteed Stability, Proc IEEE Conference on Decision and Control, Maui, USA, 2012, pp 2826-2831.
- (15) A.J. Seneviratne and V Solo, Topology Identification of a Sparse Dynamic Network, Proc IEEE Conference on Decision and Control, Maui, USA, 2012, pp 1518-1523.
- (16) M Luessi, M S. Hamalainen, V Solo, Sparse Component Selection with Application to MEG Source Localization, 2013 IEEE 10th ISBI: From Nano to Macro, San Francisco, CA, USA, April, 2013, pp 552-555.
- (17) G Marjanovic, V Solo, On Exact  $l_1$  Denoising, Proc IEEE ICASSP, pp 6068-6072, Vancouver, May 2013.
- (18) M.O. Ulfarsson, V. Solo, Sparse Component Analysis via Dyadic Cyclic Descent, Proc IEEE ICASSP, Florence, Italy, pp 4267-4271, 2014.
- (19) M Luessi, M.S. Hamalainen, V Solo, Vector  $l_0$  Latent-Space Principal Component Analysis, Proc IEEE ICASSP, Florence Italy, 2014, pp 4262-4266.
- (20) M.O. Ulfarsson, V. Solo, G. Marjanovic, Sparse and Low Rank Decomposition using  $l_0$  Penalty, Proc IEEE ICASSP, Brisbane, pp 3312-3316, April 2015.
- (21) G. Marjanovic, M.O. Ulfarsson and V. Solo, Large-Scale  $l_0$  Sparse Inverse Covariance Estimation, Proc IEEE ICASSP, pp 4767-4771, March 2016.
- (22) G. Marjanovic, V. Solo, Vector  $l_0$  Sparse Conditional Independence Graphs, Proc IEEE ICASSP, Calgary, pp 2731-2735, 2018.
- (23) A. Pasha, V. Solo, Sparse Topology Identification for Point Process Networks, Proc IEEE ICASSP, Calgary, pp 2196-2200, 2018.
- 2020s
- (24) Z. Yue, P. Sundaram, V. Solo, Fast Block-Sparse Estimation for Vector Networks, Proc IEEE ICASSP, pp 5504-5509, 2020.