

- [2] **L. Pfister**, R. Bhargava, P.S. Carney, and Y. Bresler, “Mid-Infrared Spectroscopic Tomography”, presented at the Gordon Research Conference on Image Science, 2016.
- [3] **L. Pfister**, R. Bhargava, P.S. Carney, and Y. Bresler, “Mid-Infrared Spectroscopic Tomography”, presented at the SIAM Conference on Imaging Science, 2016.
- [4] D.Stork, **L. Pfister**, M. Monjur, and P.R. Gill, “Designing application-specific optical gratings for computational diffractive sensing and imaging”, presented at the meeting of SPIE Defense + Commercial Imaging, 2016.
- [5] **L. Pfister** and Y. Bresler, “Learning Filter bank Sparsifying Transforms,” presented at SPIE Wavelets & Sparsity, San Diego, CA, 2015.
- [6] **L. Pfister** and Y. Bresler, “Model-based Tomographic Reconstruction with Adaptive Sparsifying Transforms,” presented at SPIE Electronic Imaging, San Francisco, CA, 2014.
- [7] **L. Pfister** and Y. Bresler, “Adaptive Sparsifying Transforms for Tomographic Reconstruction”, presented at International Conference on Acoustics, Speech and Signal Processing, Florence, Italy, 2014.
- [8] **L. Pfister** and Y. Bresler, “Linearized ADMM for Tomographic Reconstruction with Adaptive Sparsifying Transforms”, presented at Third International Conference on Image Formation in X-ray Computed Tomography“, Salt Lake City, UT., 2014.
- [9] **L. Pfister** and Y. Bresler, “Model-based Tomographic Reconstruction with Adaptive Sparsifying Transforms,” presented at CSL Student Conference, Urbana, IL, 2014.

JOURNAL
ARTICLES

- [1] **L. Pfister** and Y. Bresler, “Learning Filter Bank Sparsifying Transforms,” submitted to IEEE Transactions on Signal Processing.
- [2] **L. Pfister** R. Bhargava, Y. Bresler, and P.S. Carney, “Inverse Scattering with Chemical Composition Constraints for Spectroscopic Tomography from Highly Undersampled Measurements”, In preparation.

AWARDS

Research

- Andrew T. Yang Research Award for *Compressive Mid-Infrared Spectroscopic Tomography*. **2014 – 2016**
- 2nd Place at IEEE Region 4 Student Paper Contest for *Satellite and Inertial Positioning System* **May 2010**
- 2nd Place at Bradley University Student Scholarship Expo for *Satellite and Inertial Positioning System* **May 2010**

Teaching

- Mavis Future Faculty Fellowship **2014 – 2015**
- E.A. Reid Fellowship for Students Pursuing an Academic Career in Engineering **2014 – 2015**
- Olesen Award for Excellence in Undergraduate Teaching **Fall 2012**
- List of Teachers Ranked as Excellent by Their Students
 - Fall 2010, Spring 2011, Fall 2011, Spring 2012, Fall 2012

PROFESSIONAL
SERVICE

Reviewer

- IEEE Trans. Comp. Imaging, Optics Express, IEEE Statistical Signal Processing Workshop, European Signal Processing Conference

Graduate Academy for College Teaching

August 2012

- Instructor for session on Questioning Strategies and Lesson Planning.
- Microteaching session leader.

COURSE
PROJECTS

Inverse Problems in Optics

- *Sparse Solutions to Inverse Problems in Optics*

Digital Imaging

- *Radio Interferometric Imaging using Dictionary Learning*

Vector Space Signal Processing

- *Sparse Recovery by Combined Fusion Frame Measurements in Shift Invariant Spaces*

Wavelets in Signal Processing

- *Adaptive Sparsifying Transforms using the Lifting Scheme*

Numerical Analysis

- *Numerical Properties of Tomographic Reconstruction using Dictionary Learning*

SELECTED
COURSES

Modern Light Microscopy, Inverse Problems in Optics, Digital Imaging, Wavelets in Signal Processing, Vector Space Signal Processing, Advanced Digital Signal Processing, Random Processes, Numerical Analysis, Convex Optimization, Real Variables, Complex Variables