

# **2014 IEEE Western New York Image and Signal Processing Workshop**

**(WNYISPW 2014)**

**Rochester, New York, USA  
7 November 2014**



**IEEE Catalog Number: CFP1427M-POD  
ISBN: 978-1-4799-7704-8**

# Table of Contents

Welcome Message.....	iii
Machine Learning with Deep Belief Networks (Tutorial)..... <i>Ray Ptucha</i>	vk
Visual Signal Analysis and Compression: Focus on Texture Similarity (Keynote)..... <i>Thrasyvoulos N. Pappas</i>	vk
A Rapid Look at Kodak Electronic Imaging Innovation (Keynote)..... <i>K. Bradley Paxton</i>	vk
Fast L1-Eigenfaces for Robust Face Recognition ..... <i>Andreas Savakis, Matthew Johnson</i>	1
Normalized Cuts with Soft Must-Link Constraints for Image Segmentation and Clustering..... <i>Selene Chew, Nathan Cahill</i>	6
Scanning Paths for Lossless Compression of Pseudo-Color Images ..... <i>Ziya Arnavut, Basar Koc, Huseyin Kocak</i>	11
A Combined Approach for Ice Sheet Elevation Extraction from LIDAR Point Clouds..... <i>Jie Yang, John Kerekes</i>	15
A Comparison of Real and Simulated Airborne Hyperspectral Imagery..... <i>Zhaoyu Cui, John Kerekes, Christopher DeAngelis, Scott Brown, Eric Nance</i>	19
An Integrated “Plug & Play” 3D Slicer Module for Image-Guided Navigation for Training, Simulation, and Guidance..... <i>Alexander Dawson-Elli, Michael Potter, Alexander Bensch, Cristian Linte</i>	23
A Comparison of Hardware/Software Techniques in the Speedup of Color Image Processing Algorithms ..... <i>James Mazza, Dorin Patru, Eli Saber, Gene Roylance, Brad Larson</i>	27
An Adaptive k-Nearest Neighbor Graph Building Technique with Applications to Hyperspectral Imagery ..... <i>Amanda Ziemann, David Messinger, Paul Wenger</i>	32
Mirror Swarm Space Telescope..... <i>Xiaopeng Peng, Grover Swartzlander</i>	37
Real-Time Single Track Location Ultrasound Elasticity Imaging using Graphics Processing Units ..... <i>Jonathan Langdon, Stephen McAleavey</i>	42
3-D MRI Cardiac Segmentation using Graph Cuts ..... <i>Burak Uzkent, Matthew Hoffman, Elizabeth Cherry, Nathan Cahill</i>	47