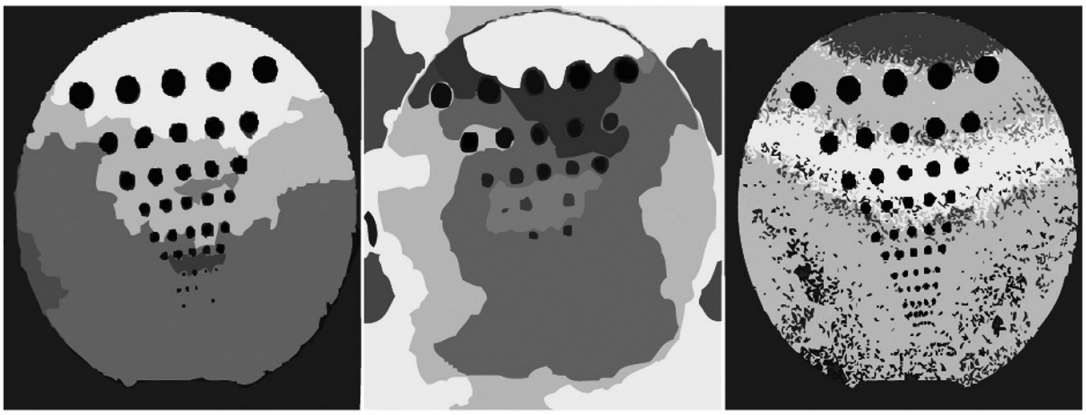
At-A-Glance

SIAM Conference on

IMAGING SCIENCE



Tom Goldstein and Stanley Osher, SIAM J. Imaging Sciences, Vol.2, No. 2

May 23 - 26, 2016

Hotel Albuquerque at Old Town
Albuquerque, New Mexico, USA

IS16 Mobile App

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2016 SIAM Conference on Imaging Science At-A-Glance

Sunday, May 22

5:00 PM - 8:00 PM
Registration
Fireplace Room

Monday, May 23

7:00 AM - 5:00 PM
Registration
Fireplace Room

8:00 AM - 8:15 AM
Welcoming Remarks
Alvarado Ballroom D and E

8:15 AM - 9:00 AM
IP1 Nonconformist Image Processing with the Graph Laplacian Operator
Peyman Milanfar, Google Research, USA
Alvarado Ballroom D and E

9:00 AM - 9:30 AM
Coffee Break
Alvarado Ballroom Atrium

9:30 AM - 11:30 AM
Concurrent Sessions
MT1 Applied Harmonic Analysis Methods in Imaging Science
Alvarado Ballroom D
MT2 Imaging Challenges of Modern Astronomy and Astrophysics
Alvarado Ballroom E
MT3 Data Representation: From Signal Processing to Machine Learning
Franciscan Ballroom

11:30 AM - 1:00 PM
Lunch Break
Attendees on their own

1:00 PM - 1:45 PM
IP2 High Resolution Tactile Sensing for Robotics, Metrology, and Medicine
Edward Adelson, Massachusetts Institute of Technology, USA
Alvarado Ballroom D and E

1:45 PM - 2:00 PM
Intermission

2:00 PM - 4:00 PM
Concurrent Sessions
MS1 Inversion of Non-linear Image Formation Models - Part I of II
Alvarado Ballroom D
MS2 Recent Advances in Convex Relaxations - Part I of II
Alvarado Ballroom E

Monday, May 23

MS3 Recent Advances in Dictionary Learning - Part I of II
Alvarado Ballroom A
MS4 Statistical Methods for Inverse Problems Involving Partial Differential Equations
Alvarado Ballroom B
MS5 Multi-Modality Imaging and Structural Priors - Part I of II
Alvarado Ballroom C
MS6 Image Segmentation, Classification and Applications - Part I of II
Alvarado Ballroom F
MS7 Computational Methods for Inverse Problems in Imaging
Alvarado Ballroom G
MS8 Non-Gaussian Noise: New Trends and Challenges - Part I of II
Alvarado Ballroom H
MS9 Efficient Algorithms for Large-scale Inverse Problems in Medical Imaging - Part I of II
Franciscan Ballroom
MS10 Image Analysis Advances in Dynamic Microscopy and Live Cell Imaging - Part I of II
Weavers Room
CP1 Image Formation
Potters Room

4:00 PM - 4:30 PM
Coffee Break
Alvarado Ballroom Atrium

4:30 PM - 6:30 PM
Concurrent Sessions
MS11 Inversion of Non-linear Image Formation Models - Part II of II
Alvarado Ballroom D
MS12 Recent Advances in Convex Relaxations - Part II of II
Alvarado Ballroom E
MS13 Recent Advances in Dictionary Learning - Part II of II
Alvarado Ballroom A
MS14 PDE-based Image Processing: Reconstruction, Filtering, Segmentation, Compression, and Inpainting
Alvarado Ballroom B
MS15 Multi-Modality Imaging and Structural Priors - Part II of II
Alvarado Ballroom C
MS16 Image Segmentation, Classification and Applications - Part II of II
Alvarado Ballroom F
MS17 Large-scale Optimization and Imaging Science
Alvarado Ballroom G

Monday, May 23

MS18 Non-Gaussian Noise: New Trends and Challenges - Part II of II
Alvarado Ballroom H
MS19 Efficient Algorithms for Large-scale Inverse Problems in Medical Imaging - Part II of II
Franciscan Ballroom
MS20 Image Analysis Advances in Dynamic Microscopy and Live Cell Imaging - Part II of II
Weavers Room
CP2 Optimization
Potters Room

6:30 PM - 8:30 PM
PP1 Welcome Reception and Poster Session
Alvarado Ballroom Atrium

Tuesday, May 24

7:45 AM - 5:00 PM
Registration
Fireplace Room

8:10 AM - 8:15 AM
Remarks
Alvarado Ballroom D and E

8:15 AM - 9:00 AM
IP3 Image Processing, Internet-of-Things, and Inverse Problems: Blind Deconvolution Meets Blind Demixing
Thomas Strohmer, University of California, Davis, USA
Alvarado Ballroom D and E

9:00 AM - 9:30 AM
Coffee Break
Alvarado Ballroom Atrium

9:30 AM - 11:30 AM
Concurrent Sessions
MS21 Recent Developments in Hybrid Inverse Problems and Imaging - Part I of III
Alvarado Ballroom D
MS22 Convex Signal Recovery from Pairwise Measurements
Alvarado Ballroom E
MS23 Topology and Geometry Across Scales - Part I of III
Alvarado Ballroom A
MS24 Leveraging Ideas from Imaging Science in PDE-constrained Optimization - Part I of III
Alvarado Ballroom B

Tuesday, May 24 Tuesday, May 24 Tuesday, May 24

MS25 Statistical Modeling of High-Dimensional Brain Signals and Images
Alvarado Ballroom C
MS26 Recent Advances in Image Classification and Recognition
Alvarado Ballroom F
MS27 Parallel and Distributed Data Compression and Reconstruction in Imaging and High Performance Computing - Part I of II
Alvarado Ballroom G
MS28 Recent Developments in Image Reconstruction and Restoration - Part I of III
Alvarado Ballroom H
MS29 Addressing the Computational Challenge of Sparsity-regularized X-ray Tomography
Franciscan Ballroom
MS30 Computational Methods for Cryo-electron Microscopy Single Particle Reconstruction - Part I of III
Weavers Room
CP3 Low-rank Models
Potters Room

11:30 AM - 1:00 PM
Lunch Break
Attendees on their own

11:30 AM - 1:00 PM
SIAM Focus Group (by invitation only)
Turquoise

1:00 PM - 1:45 PM
SP1 SIAG/Imaging Science Early Career Prize Lecture - Revisiting Classical Problems of Image Processing: Looking for New Ways to Address Longstanding Problems
Mauricio Delbracio, Duke University, USA
Alvarado Ballroom D and E

1:45 PM - 2:00 PM
Intermission

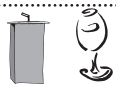
2:00 PM - 4:00 PM
Concurrent Sessions
MS31 Recent Developments in Hybrid Inverse Problems and Imaging - Part II of III
Alvarado Ballroom D
MS32 Selected Papers from the SIAM Journal on Imaging Sciences - Part I of II
Alvarado Ballroom E
MS33 Topology and Geometry Across Scales - Part II of III
Alvarado Ballroom A
MS34 Leveraging Ideas from Imaging Science in PDE-constrained Optimization - Part II of III
Alvarado Ballroom B
MS35 Geometry-based Models in Image Processing - Part I of II
Alvarado Ballroom C
MS36 Spectral Methods for Nonlocal Diffusion and Segmentation
Alvarado Ballroom F
MS37 Parallel and Distributed Data Compression and Reconstruction in Imaging and High Performance Computing - Part II of II
Alvarado Ballroom G
MS38 Recent Developments in Image Reconstruction and Restoration - Part II of III
Alvarado Ballroom H
MS39 Limited-data Tomography - Part I of II
Franciscan Ballroom
MS40 Computational Methods for Cryo-electron Microscopy Single Particle Reconstruction - Part II of III
Weavers Room
CP4 Sparsity
Potters Room

4:00 PM - 4:30 PM
Coffee Break
Alvarado Ballroom Atrium

4:30 PM - 6:30 PM
Concurrent Sessions
MS41 Recent Developments in Hybrid Inverse Problems and Imaging - Part III of III
Alvarado Ballroom D
MS42 Selected Papers from the SIAM Journal on Imaging Sciences - Part II of II
Alvarado Ballroom E
MS43 Topology and Geometry Across Scales - Part III of III
Alvarado Ballroom A
MS44 Leveraging Ideas from Imaging Science in PDE-constrained Optimization - Part III of III
Alvarado Ballroom B
MS45 Geometry-based Models in Image Processing - Part II of II
Alvarado Ballroom C
MS46 Imaging in the Fast Lane: In Pursuit of Dynamical Information - Part I of II
Alvarado Ballroom F
MS47 Recent Developments in Image Reconstruction and Restoration - Part III of III
Alvarado Ballroom H
MS48 Limited-data Tomography - Part II of II
Franciscan Ballroom
MS49 Computational Methods for Cryo-electron Microscopy Single Particle Reconstruction - Part III of III
Weavers Room
MS65 The Never-Ending Story of Image Denoising - Part I of II
Alvarado Ballroom G
CP5 PDE-Based Methods
Potters Room

6:30 PM - 6:45 PM
Intermission

6:45 PM - 7:30 PM
SIAG/IS Business Meeting
Alvarado Ballroom D
Complimentary beer and wine will be served.



Wednesday, May 25

7:45 AM - 5:00 PM
Registration
Fireplace Room

8:10 AM - 8:15 AM
Remarks
Alvarado Ballroom D and E

8:15 AM - 9:00 AM
IP4 Semantic Scene Parsing by Entropy Pursuit
Donald Geman, Johns Hopkins University, USA
Alvarado Ballroom D and E

9:00 AM - 9:30 AM
Coffee Break
Alvarado Ballroom Atrium

9:30 AM - 11:30 AM
Concurrent Sessions
MS50 Radar Detection and Imaging
Alvarado Ballroom D
MS51 Nonconvex Regularization in Imaging: Theory, Algorithms and Applications - Part I of III
Alvarado Ballroom E
MS52 Compressive and Computational Imaging Technologies and Applications - Part I of III
Alvarado Ballroom A
MS53 New Applications of the Eikonal Equation
Alvarado Ballroom B
MS54 Theoretical and Computational Aspects of Geometric Shape Analysis - Part I of III
Alvarado Ballroom C
MS55 Imaging in the Fast Lane: In Pursuit of Dynamical Information - Part II of II
Alvarado Ballroom F
MS56 Texture Modeling
Alvarado Ballroom G

Wednesday, May 25

MS57 High Order Regularization and Numerical Methods
Alvarado Ballroom H
MS58 Optimization Theory in Medical Imaging
Franciscan Ballroom
MS59 Advances in Phase Retrieval for Diffractive Imaging
Weavers Room
CP6 Modeling
Potters Room

11:30 AM - 1:00 PM
Lunch Break
Attendees on their own

1:00 PM - 1:45 PM
SP2 SIAG/Imaging Science Best Paper Prize Lecture - Scale Invariant Geometry for Nonrigid Shapes
Dan Raviv, Massachusetts Institute of Technology, USA
Alvarado Ballroom D and E

1:45 PM - 2:00 PM
Intermission

2:00 PM - 4:00 PM
Concurrent Sessions
MS60 Recent Advances in Multi-model Approaches for Image Problems - Part I of II
Alvarado Ballroom D
MS61 Nonconvex Regularization in Imaging: Theory, Algorithms and Applications - Part II of III
Alvarado Ballroom E
MS62 Compressive and Computational Imaging Technologies and Applications - Part II of III
Alvarado Ballroom A
MS63 Nonlinear Mathematics of Electrical Impedance Imaging - Part I of II
Alvarado Ballroom B
MS64 Theoretical and Computational Aspects of Geometric Shape Analysis - Part II of III
Alvarado Ballroom C
MS65 See Tuesday 4:30
MS66 Big Data for Inverse Problems in Imaging - Part I of II
Alvarado Ballroom G
MS67 Parameter Selection in Image Reconstruction - Part I of II
Alvarado Ballroom H
MS68 New Statistical Developments in Neuroimaging
Franciscan Ballroom
CP7 Image Analysis
Potters Room

Wednesday, May 25

4:00 PM - 4:30 PM
Coffee Break
Alvarado Ballroom Atrium

4:30 PM - 6:30 PM
Concurrent Sessions
MS69 Recent Advances in Multi-model Approaches for Image Problems - Part II of II
Alvarado Ballroom D
MS70 Nonconvex Regularization in Imaging: Theory, Algorithms and Applications - Part III of III
Alvarado Ballroom E
MS71 Compressive and Computational Imaging Technologies and Applications - Part III of III
Alvarado Ballroom A
MS72 Nonlinear Mathematics of Electrical Impedance Imaging - Part II of II
Alvarado Ballroom B
MS73 Theoretical and Computational Aspects of Geometric Shape Analysis - Part III of III
Alvarado Ballroom C
MS74 The Never-Ending Story of Image Denoising - Part II of II
Alvarado Ballroom F
MS75 Big Data for Inverse Problems in Imaging - Part II of II
Alvarado Ballroom G
MS76 Parameter Selection in Image Reconstruction - Part II of II
Alvarado Ballroom H
MS77 Computational Methods for the Processing of Diffusion MRI Data and the Analysis of Brain Connectivity
Franciscan Ballroom
MS78 Multidimensional Mode Decomposition and Applications - Part I of III
Weavers Room
CP8 Computational Methods
Potters Room

7:00 PM - 9:00 PM
SIIMS Editorial Board Dinner Meeting
Turquoise

Thursday, May 26

7:45 AM - 2:30 PM
Registration
Fireplace Room

8:10 AM - 8:15 AM
Closing Remarks
Alvarado Ballroom D and E

8:15 AM - 9:00 AM
IP5 Recent Advances in Seismic Technology: From Imaging to Inversion
Uwe Albertin, Chevron Energy Technology Company, USA
Alvarado Ballroom D and E

9:00 AM - 9:30 AM
Coffee Break
Alvarado Ballroom Atrium

9:30 AM - 11:30 AM
Concurrent Sessions
MS79 Recent Developments and Challenges of Imaging Techniques in Geoscience
Alvarado Ballroom D
MS80 Non-Convex Regularization Methods in Image Restoration - Part I of II
Alvarado Ballroom E
MS81 Analysis and Parameterisation of Derivative Based Regularisation - Part I of II
Alvarado Ballroom A
MS82 Wave-based Imaging in Complex Media - Part I of II
Alvarado Ballroom B
MS83 Computational Imaging Systems
Alvarado Ballroom C
MS84 Imaging and Space Situational Awareness - Part I of II
Alvarado Ballroom F
MS85 Mathematical Techniques for Still Photography and Video - Part I of II
Alvarado Ballroom G
MS86 New Models for Image Restoration and Enhancement - Part I of II
Alvarado Ballroom H
MS87 Computational Methods in Multimodal Neuroimaging, Genetics, and Data Modeling
Franciscan Ballroom
MS88 Multidimensional Mode Decomposition and Applications - Part II of III
Weavers Room
CP9 Medical Imaging
Potters Room

11:30 AM - 1:00 PM
Lunch Break
Attendees on their own

Thursday, May 26

1:00 PM - 1:45 PM
IP6 Event-Based Silicon Retina Technology
Tobi Delbruck, University of Zurich and ETH Zurich, Switzerland
Alvarado Ballroom D and E

1:45 PM - 2:00 PM
Intermission

2:00 PM - 4:00 PM
Concurrent Sessions
MS89 Non-Convex Regularization Methods in Image Restoration - Part II of II
Alvarado Ballroom E
MS90 Analysis and Parameterisation of Derivative Based Regularisation - Part II of II
Alvarado Ballroom A
MS91 Wave-based Imaging in Complex Media - Part II of II
Alvarado Ballroom B
MS92 Splitting Methods and Their Applications in Computational Imaging
Alvarado Ballroom C
MS93 Imaging and Space Situational Awareness - Part II of II
Alvarado Ballroom F
MS94 Mathematical Techniques for Still Photography and Video - Part II of II
Alvarado Ballroom G
MS95 New Models for Image Restoration and Enhancement - Part II of II
Alvarado Ballroom H
MS96 Inverse Problems in Neuroimaging
Alvarado Ballroom D
MS97 Multidimensional Mode Decomposition and Applications - Part III of III
Weavers Room
CP10 Registration, Denoising, Super-Resolution
Franciscan Ballroom
CP11 Microscopy and Geosciences
Potters Room

Key to abbreviations and symbols

 = Business Meeting

 = Coffee Break

 = Refreshments Served

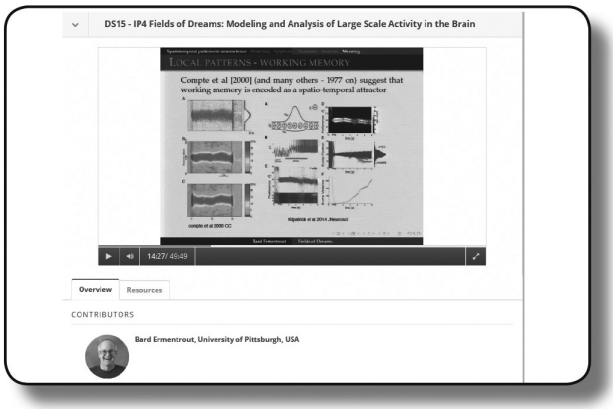
IP = Invited Plenary Speaker

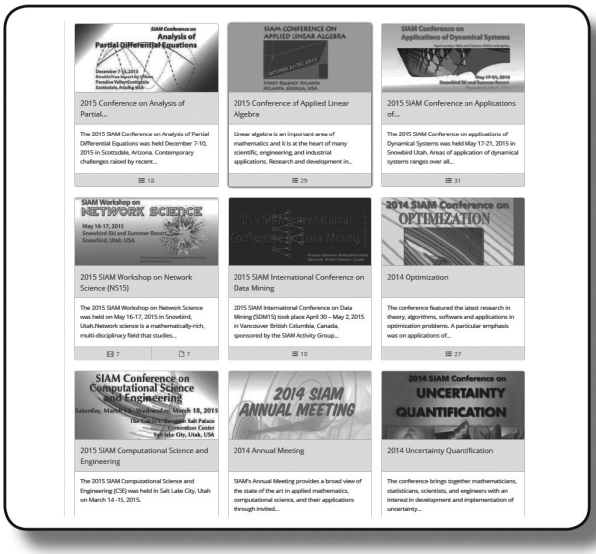
CP = Contributed Presentation

MS = Minisymposium

PP = Poster Session

SP = Special Lecture





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- **geophysical science**
- **optimization**
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Plans for adding more content are on the horizon. Keep an eye out!

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