Medical Imaging 2013

Image Perception, Observer Performance, and Technology Assessment

Craig K. Abbey
Claudia R. Mello-Thoms
Editors

10–11 February 2013
Lake Buena Vista, Florida, United States

Sponsored by
SPIE

Cosponsored by
Aeroflex Incorporated • CREOL – The College Of Optics and Photonics, University of Central Florida (United States) • DQE Instruments, Inc. (Canada) • Medtronic, Inc. • PIXELTEQ, Multispectral Sensing & Imaging

Cooperating Organizations
AAPM—American Association of Physicists in Medicine (United States) • APS—American Physiological Society • CARS—Computer Assisted Radiology and Surgery (Germany)
Medical Image Perception Society (United States) • Radiological Society of North America (United States) • The DICOM Standards Committee (United States) • Society for Imaging Informatics in Medicine (United States) • Florida Photonics Cluster (United States)
World Molecular Imaging Society

Published by
SPIE

Volume 8673

SPIE is an international society advancing an interdisciplinary approach to the science and application of light.
# Contents

<table>
<thead>
<tr>
<th>xi</th>
<th>Conference Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>xiii</td>
<td>Introduction</td>
</tr>
</tbody>
</table>

## SESSION 1  KEYNOTE AND VISUAL SEARCH

<table>
<thead>
<tr>
<th>8673 02</th>
<th>Investigating the association of eye gaze pattern and diagnostic error in mammography [8673-2]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S. Voisin, Oak Ridge National Lab. (United States); F. Pinto, Virginia State Univ. (United States); S. Xu, Oak Ridge National Lab. (United States); G. Morin-Ducote, K. Hudson, Univ. of Tennessee Medical Ctr. (United States); G. D. Tourassi, Oak Ridge National Lab. (United States)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8673 03</th>
<th>High throughput screening for mammography using a human-computer interface with rapid serial visual presentation (RSVP) [8673-3]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C. Hope, A. Sterr, P. Elangovan, N. Geades, D. Windridge, Univ. of Surrey (United Kingdom); K. Young, The Royal Surrey County Hospital NHS Trust (United Kingdom); K. Wells, Univ. of Surrey (United Kingdom)</td>
</tr>
</tbody>
</table>

## SESSION 2  IMAGE PERCEPTION

<table>
<thead>
<tr>
<th>8673 06</th>
<th>A novel graphical user interface for high-efficacy modeling of human perceptual similarity opinions [8673-5]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>J. Kress, Boise State Univ. (United States); S. Xu, G. Tourassi, Oak Ridge National Lab. (United States)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8673 07</th>
<th>BREAST: a novel method to improve the diagnostic efficacy of mammography [8673-6]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P. C. Brennan, K. Tapia, The Univ. of Sydney (Australia); J. Ryan, Ziltron (United States); W. Lee, Cancer Institute NSW (Australia)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8673 08</th>
<th>Perception in screening mammography: Can insertion of obvious cases enhance detection? [8673-7]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S. J. Lewis, M. W. Pietrzyk, R. C. K. Nurthen, M. F. McEntee, The Univ. of Sydney (Australia); M. Evanoff, The American Board of Radiology (United States); W. Lee, The Univ. of Sydney (Australia) and Cancer Institute NSW (Australia); P. C. Brennan, W. M. Reed, The Univ. of Sydney (Australia)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8673 09</th>
<th>Is grandma like a lichen planus? The problem of image perception and knowledge retention in pathology [8673-8]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C. Mello-Thoms, E. Legowski, E. Tseytlin, Univ. of Pittsburgh (United States)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8673 0A</th>
<th>Characterization of human observer detection in AFC volumetric detection tasks [8673-9]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I. Diaz, S. Kobbe-Schmidt, F. R. Verdun, F. O. Bochud, Ctr. Hospitalier Univ. Vaudois (Switzerland)</td>
</tr>
</tbody>
</table>
SESSION 3  ROC

8673 0B The impact of using a JAFROC or ROC approach on the conclusions of a typical observer performance study [8673-10]
M. Rawashdeh, The Univ. of Sydney (Australia); W. Lee, Cancer Institute NSW (Australia);
M. Pietrzyk, R. Bourne, E. Ryan, W. Reed, P. C. Brennan, The Univ. of Sydney (Australia)

8673 0C One parameter contaminated binormal model (CBM) for analysis of difficult-to-fit ROC data [8673-11]
K. S. Berbaum, K. M. Schartz, Univ. of Iowa (United States)

8673 0D Statistical properties of a utility measure of observer performance compared to area under the ROC curve [8673-12]
C. K. Abbey, Univ. of California, Santa Barbara (United States) and UC Davis Medical Ctr. (United States); F. W. Samuelson, B. D. Gallas, U.S. Food and Drug Administration (United States); J. M. Boone, UC Davis Medical Ctr. (United States); L. T. Niklason, Hologic, Inc. (United States)

8673 0E The equivalence of a human observer and an ideal observer in binary diagnostic tasks [8673-13]
X. He, F. Samuelson, B. D. Gallas, B. Sahiner, K. Myers, U.S. Food and Drug Administration (United States)

8673 0F A nonparametric approach for statistical comparison of results from alternative forced choice experiments [8673-14]
F. Noo, A. Wunderlich, D. Heuscher, K. Schmitt, Z. Yu, The Univ. of Utah (United States)

SESSION 4  MODEL OBSERVERS

8673 0G Two complementary model observers to evaluate reconstructions of simulated microcalcifications in digital breast tomosynthesis [8673-15]
K. Michielsen, KU Leuven (Belgium); F. Zanca, N. Marshall, H. Bosmans, UZ Leuven (Belgium); J. Nuyts, KU Leuven (Belgium)

8673 0H Integration of spatio-temporal contrast sensitivity with a multi-slice channelized Hotelling observer [8673-16]
A. N. Avanaki, K. S. Espig, Barco, Inc. (United States); C. Marchessoux, Barco N.V. (Belgium); E. A. Krupinski, The Univ. of Arizona (United States); P. R. Bakic, The Univ. of Pennsylvania (United States); T. R. L. Kimpe, Barco N.V. (Belgium); A. D. A. Maidment, The Univ. of Pennsylvania (United States)

8673 0I Exact confidence intervals for channelized Hotelling observer performance [8673-17]
A. Wunderlich, The Univ. of Utah (United States) and U.S. Food and Drug Administration (United States); F. Noo, M. Heilbrun, The Univ. of Utah (United States)

8673 0J Objectively measuring signal detectability, contrast, blur and noise in medical images using channelized joint observers [8673-18]
B. Goossens, H. Luong, L. Platiša, W. Philips, Univ. Gent (Belgium)

8673 0K Model mismatch and the ideal observer in SPECT [8673-19]
M. Ghaly, J. M. Links, Y. Du, E. C. Frey, Johns Hopkins Univ. (United States)
Tests of a 3D visual-search model observer for SPECT [8673-20]
H. C. Gifford, Univ. of Houston (United States)

Identification of depth information with stereoscopic mammography using different display methods [8673-21]
T. Morikawa, Y. Kodera, Nagoya Univ. (Japan)

Assessment of visual-spatial skills in medical context tasks when using monoscopic and stereoscopic visualization [8673-22]
M. Martinez Escobar, B. Juhnke, Iowa State Univ. (United States); K. Hisley, D. Eliot, Touro Univ. (United States); E. Winer, Iowa State Univ. (United States)

Effect of image processing version on detection of non-calcification cancers in 2D digital mammography imaging [8673-23]
L. M. Warren, The Royal Surrey County Hospital NHS Trust (United Kingdom) and Univ. of Surrey (United Kingdom); J. Cooke, Jarvis Breast Screening and Diagnostic Ctr. (United Kingdom); R. M. Given-Wilson, St George’s Healthcare NHS Trust (United Kingdom); M. G. Wallis, Cambridge Univ. Hospitals NHS Foundation Trust (United Kingdom) and NIHR Cambridge Biomedical Research Ctr. (United Kingdom); M. Halling-Brown, The Royal Surrey County Hospital NHS Trust (United Kingdom) and Univ. of Surrey (United Kingdom); D. P. Chakraborty, Univ. of Pittsburgh (United States); H. Bosmans, Univ. Hospitals Leuven (Belgium); D. R. Dance, K. C. Young, The Royal Surrey County Hospital NHS Trust (United Kingdom) and Univ. of Surrey (United Kingdom)

Can technical characteristics predict clinical performance in PET/CT imaging? A correlation study for thyroid cancer diagnosis [8673-24]
M. Kallergi, D. Menychtas, Technological Educational Institute of Athens (Greece); A. Georgakopoulos, N. Pianou, M. Metaxas, Biomedical Research Foundation, Academy of Athens (Greece); S. Chatzioannou, National and Kapodistrian Univ. of Athens (Greece)

Enhancing reproducibility of ultrasonic measurements by new users [8673-25]
M. Pramanik, Indian Institute of Science (India); M. Gupta, GE Healthcare (India); K. B. Krishnan, GE Global Research (India)

Test set readings predict clinical performance to a limited extent: preliminary findings [8673-26]
B. P. Soh, The Univ. of Sydney (Australia) and Singapore General Hospital (Singapore); W. M. Lee, Cancer Institute NSW (Australia); P. L. Kench, W. M. Reed, M. F. McEntee, P. C. Brennan, The Univ. of Sydney (Australia)
A comparison of image interpretation times in full field digital mammography and digital breast tomosynthesis [8673-27]
S. Astley, S. Connor, The Univ. of Manchester (United Kingdom); Y. Lim, Univ. Hospital of South Manchester (United Kingdom); C. Tate, The Univ. of Manchester (United Kingdom); H. Entwistle, J. Morris, S. Whiteside, Univ. Hospital of South Manchester (United Kingdom); J. Sergeant, The Univ. of Manchester (United Kingdom); M. Wilson, U. Beetles, C. Boggis, Univ. Hospital of South Manchester (United Kingdom); F. Gilbert, Univ. of Cambridge (United Kingdom)

Same task, same observers, different values: the problem with visual assessment of breast density [8673-28]
J. C. Sergeant, L. Walshaw, The Univ. of Manchester (United Kingdom); M. Wilson, Univ. Hospital of South Manchester (United Kingdom); S. Seed, The Univ. of Manchester (United Kingdom); N. Barr, U. Beetles, C. Boggis, S. Bundred, S. Gadde, Y. Lim, S. Whiteside, D. G. Evans, A. Howell, Univ. Hospital of South Manchester (United Kingdom); S. M. Astley, The Univ. of Manchester (United Kingdom)

The impact of mammographic density and lesion location on detection [8673-29]
D. Al Mousa, E. Ryan, The Univ. of Sydney (Australia); W. Lee, Cancer Institute NSW (Australia); C. Nickson, The Univ. of Melbourne (Australia); M. Pietrzyk, W. Reed, A. Poulos, Y. Li, P. Brennan, The Univ. of Sydney (Australia)

Does routine breast screening practice over-ride display quality in reporting enriched test sets? [8673-30]
Y. Chen, A. G. Gale, Loughborough Univ. (United Kingdom); M. Evanoff, The American Board of Radiology (United States)

Difficulty of mammographic cases in the context of resident training: preliminary experimental data [8673-31]
M. A. Mazurowski, Carl E. Ravin Advanced Imaging Labs., Duke Univ. (United States) and Duke Univ. (United States)

Analysis of individual variability and habituation in stereoscopic radiography [8673-32]
Y. Y. Unno, T. Kuwabara, FUJIFILM Corp. (Japan); R. A. Uzenoff, FUJIFILM Medical Systems USA, Inc. (United States); N. Natsui, K. Ishikawa, Tokyo Polytechnic Univ. (Japan)

Impact of bone suppression imaging on the detection of lung nodules in chest radiographs: analysis of multiple reading sessions [8673-33]
S. Schalekamp, B. van Ginneken, Radboud Univ. Nijmegen Medical Ctr. (Netherlands); C. M. Schaefer-Prokop, Radboud Univ. Nijmegen Medical Ctr. (Netherlands) and Meander Medical Ctr. (Netherlands); N. Karssemeijer, Radboud Univ. Nijmegen Medical Ctr. (Netherlands)

A preliminary comparison of different methods for observer performance estimation [8673-34]
F. Massanes, J. G. Brankov, Illinois Institute of Technology (United States)
The variation of radiologists' performance over the course of a reading session [8673-35]
M. C. Elze, S. Taylor-Phillips, The Univ. of Warwick (United Kingdom); C. Mello-Thoms, Univ. of Pittsburgh (United States); E. A. Krupinski, The Univ. of Arizona (United States); A. G. Gale, Loughborough Univ. (United Kingdom); A. Clarke, The Univ. of Warwick (United Kingdom)

Investigating the feasibility of using partial least squares as a method of extracting salient information for the evaluation of digital breast tomosynthesis [8673-36]
G. Z. Zhang, K. J. Myers, S. Park, U.S. Food and Drug Administration (United States)

Quantitative anatomical labeling of the anterior abdominal wall [8673-37]
W. M. Allen, Z. Xu, A. J. Asman, Vanderbilt Univ. (United States); B. K. Poulse, Vanderbilt Univ. Medical Ctr. (United States); B. A. Landman, Vanderbilt Univ. (United States)

Observer performance in semi-automated microbleed detection [8673-38]
H. J. Kuijff, Image Sciences Institute, Univ. Medical Ctr. Utrecht (Netherlands); M. Brundel, Rudolf Magnus Institute of Neuroscience, Univ. Medical Ctr. Utrecht (Netherlands); J. de Bresser, Univ. Medical Ctr. Utrecht (Netherlands); M. A. Viergever, Image Sciences Institute, Univ. Medical Ctr. Utrecht (Netherlands); G. J. Biessels, Rudolf Magnus Institute of Neuroscience, Univ. Medical Ctr. Utrecht (Netherlands); M. I. Geerlings, Julius Ctr. for Health Sciences and Primary Care, Univ. Medical Ctr. Utrecht (Netherlands); K. L. Vincken, Image Sciences Institute, Univ. Medical Ctr. Utrecht (Netherlands)

An investigation of the relationship between ambient lighting and image manipulation behavior [8673-39]
L. S. Ming, R. J. Toomey, Univ. College Dublin (Ireland); J. T. Ryan, Ziltron (Ireland); L. A. Rainford, Univ. College Dublin (Ireland)

The effect of viewing distance on observer performance in skeletal radiographs [8673-40]
M. L. Butler, J. Lowe, R. J. Toomey, M. Maher, Univ. College Dublin (Ireland); M. E. Evanoff, The American Board of Radiology (United States); L. Rainford, Univ. College Dublin (Ireland)

Breast screening: understanding case difficulty and the nature of errors [8673-41]
L. Dong, Y. Chen, A. G. Gale, Loughborough Univ. (United Kingdom)

Immersive virtual reality for visualization of abdominal CT [8673-42]
Q. Lin, Z. Xu, B. Li, Vanderbilt Univ. (United States); R. Baucom, B. Poulse, Vanderbilt Univ. Medical Ctr. (United States); B. A. Landman, R. E. Bodenheimer, Vanderbilt Univ. (United States)

B. Li, Fourth Military Medical Univ. (China) and National Univ. of Defense Technology (China); J. Liu, National Univ. of Defense Technology (China); Y. Liu, H.-B. Lu, Fourth Military Medical Univ. (China); H. Yin, Xijing Hospital (China)

Does image reduction affect the diagnostic accuracy of digital mammograms? [8673-44]
Y. Takane, Y. Kawasumi, T. Horie, T. Ishibashi, Tohoku Univ. (Japan)

Deviance statistics in model fit and selection in ROC studies [8673-45]
T. Lei, K. T. Bae, UPMC Presbyterian (United States)
8673 1B  Visibility of single spiculations in digital breast tomosynthesis [8673-46]
  P. Timberg, M. Dustler, D. Förrvik, S. Zackrisson, Lund Univ., Skåne Univ. Hospital (Sweden)

8673 1C  Assessment of image quality in orthopaedic radiography with digital detectors: a visual grading analysis [8673-47]
  R. Decoster, H. Mol, R. van den Broeck, D. Smits, Hogeschool-Univ. Brussel (Belgium)

8673 1D  Model-based Bayesian inference for ROC data analysis [8673-48]
  T. Lei, K. T. Bae, UPMC Presbyterian (United States)

8673 1E  Development of digital rectangular phantoms for quality controls of medical primary monitors in RIS-PACS systems [8673-49]
  A. Mattacchioni, M. Cristianini, A. Lo Bosco, Azienda Sanitaria Locale Roma H (Italy)

8673 1F  Prediction of near-term breast cancer risk using a Bayesian belief network (Cum Laude Poster Award) [8673-50]
  B. Zheng, P. Ramalingam, H. Hariraran, J. K. Leader, D. Gur, Univ. of Pittsburgh (United States)

8673 1G  A new assessment method for image fusion quality [8673-51]
  L. Li, W. Jiang, J. Li, M. Yuchi, M. Ding, X. Zhang, Huazhong Univ. of Science and Technology (China)

8673 1H  Application of a computed tomography based cystic fibrosis scoring system to chest tomosynthesis [8673-52]
  C. Söderman, Univ. of Gothenburg (Sweden); Å. Johnsson, J. Vikgren, Univ. of Gothenburg (Sweden) and Sahlgrenska Univ. Hospital (Sweden); H. Rystedt, J. Ivarsson, Univ. of Gothenburg (Sweden); R. Rossi Norrland, L. Nyberg Andersson, M. Båth, Univ. of Gothenburg (Sweden) and Sahlgrenska Univ. Hospital (Sweden)

8673 1I  An initial investigation of radiologist eye movements in vascular imaging [8673-53]
  R. J. Toomey, Univ. College Dublin (Ireland); S. Hodgins, Acuity ETS (United Kingdom); M. E. Evanoff, The American Board of Radiology (United States); L. A. Rainford, Univ. College Dublin (Ireland)

8673 1J  The value of the craniocaudal mammographic view in breast cancer detection: a preliminary study [8673-54]
  P. D. Trieu, P. C. Brennan, The Univ. of Sydney (Australia); W. Lee, Cancer Institute NSW (Australia); E. Ryan, W. Reed, M. W. Pietrzyk, The Univ. of Sydney (Australia)

8673 1K  Assessment of methods to extract the mid-sagittal plane from brain MR images [8673-55]
  H. J. Kuijif, A. Leemans, M. A. Viergever, K. L. Vincken, Image Sciences Institute, Univ. Medical Ctr. Utrecht (Netherlands)

8673 1L  A study of the feasibility of using slabbing to reduce tomosynthesis review time [8673-56]
  M. Dustler, M. Andersson, D. Förrvik, P. Timberg, A. Tingberg, Lund Univ., Skåne Univ. Hospital (Sweden)
Comparing the Microsoft Kinect to a traditional mouse for adjusting the viewed tissue densities of three-dimensional anatomical structures [8673-57]
B. Juhnke, Iowa State Univ. (United States); M. Berron, Univ. of Maryland, Baltimore County (United States); A. Philip, The Pennsylvania State Univ. (United States); J. Williams, Univ. of Maryland, Baltimore County (United States); J. Holub, E. Winer, Iowa State Univ. (United States)

Potential method for relieving fatigue in radiologists [8673-58]
E. A. Krupinski, The Univ. of Arizona (United States)

Availability of color calibration for consistent color display in medical images and optimization of reference brightness for clinical use [8673-59]
D. Iwai, Nagoya Univ. School of Medicine (Japan); H. Suganami, M. Hosoba, K. Ohno, Y. Emoto, Y. Tabata, Kyoto College of Medical Science (Japan); N. Matsuji, Shimadzu Corp. (Japan)

Analysis of detectability loss through fan-beam x-ray computed tomography reconstruction [8673-60]
A. A. Sanchez, E. Y. Sidky, X. Pan, The Univ. of Chicago Medical Ctr. (United States)

Study of the radiation dose reduction capability of a CT reconstruction algorithm: LCD performance assessment using mathematical model observers [8673-61]
J. Fan, GE Healthcare (United States); H.-W. Tseng, GE Healthcare (United States) and College of Optical Sciences, The Univ. of Arizona (United States); M. Kupinski, College of Optical Sciences, The Univ. of Arizona (United States); G. Cao, P. Sainath, J. Hsieh, GE Healthcare (United States)

Cardiovascular CTA applications: patient-specific contrast formulae [8673-62]
C. Saade, Royal Prince Alfred Hospital (Australia), The Univ. of Sydney (Australia), and American Univ. of Beirut (Lebanon); R. Bourne, The Univ. of Sydney (Australia); M. Wilkinson, Royal Prince Alfred Hospital (Australia); P. Brennan, The Univ. of Sydney (Australia)

A novel phantom system facilitating better descriptors of density within mammographic images [8673-63]
Y. Li, P. C. Brennan, The Univ. of Sydney (Australia); C. Nickson, The Univ. of Melbourne (Australia); M. W. Pietrzyk, D. Al Mousa, E. Ryan, The Univ. of Sydney (Australia)

Physical evaluation of color and monochrome medical displays using an imaging colorimeter [8673-64]
H. Roehrig, The Univ. of Arizona (United States) and Image Quality, LLC (United States); X. Gu, Image Quality, LLC (United States); J. Fan, GE Healthcare (United States)

Author Index
Conference Committee

Symposium Chairs
Nico Karssemeijer, Radboud University Nijmegen Medical Center (Netherlands)
Ehsan Samei, Duke University (United States)

Conference Chairs
Craig K. Abbey, University of California, Santa Barbara (United States)
Claudia R. Mello-Thoms, University of Pittsburgh (United States)

Conference Program Committee
François O. Bochud, Centre Hospitalier Universitaire Vaudois (Switzerland)
Jovan G. Brankov, Illinois Institute of Technology (United States)
Darrin C. Edwards, The University of Chicago (United States)
Alastair G. Gale, Loughborough University (United Kingdom)
Howard C. Gifford, University of Massachusetts Medical School (United States)
Stephen L. Hillis, Iowa City VA Medical Center (United States)
Elizabeth A. Krupinski, The University of Arizona (United States)
Matthew A. Kupinski, College of Optical Sciences, The University of Arizona (United States)
Maciej A. Mazurowski, Duke University (United States)
Anthony J. Maeder, University of Western Sydney (Australia)
Mark F. McEntee, The University of Sydney (Australia)
Berkman Sahiner, U.S. Food and Drug Administration (United States)
David L. Wilson, Case Western Reserve University (United States)
Federica Zanca, UZ Leuven (Belgium)

Session Chairs
1 Keynote and Visual Search
   Craig K. Abbey, University of California, Santa Barbara (United States)
   Claudia R. Mello-Thoms, University of Pittsburgh (United States)

2 Image Perception
   Elizabeth A. Krupinski, The University of Arizona (United States)

3 ROC
   Stephen L. Hillis, Iowa City VA Medical Center (United States)

4 Model Observers
   Jovan G. Brankov, Illinois Institute of Technology (United States)
5 Tech Assessment
Matthew A. Kupinski, College of Optical Sciences, The University of Arizona (United States)

6 Observer Performance: Breast
Maciej A. Mazurowski, Duke University (United States)

7 Observer Performance: General
Federica Zanca, UZ Leuven (Belgium)
Introduction

The Image Perception, Observer Performance, and Technology Assessment Conference, part of the SPIE Medical Imaging Symposium 2013, was held Sunday and Monday – February 10th and 11th – at the Disney Coronado Springs Resort, Lake Buena Vista, Orlando, Florida.

The conference opened with a Keynote lecture by Prof. Miguel Eckstein, Ph.D., from the University of California, Santa Barbara, entitled “Optimizing visual search: How does the brain do it?” The talk was lively and connected search in medical imaging to current research topics in vision and neuroscience. In many ways it set the tone for the presentations and discussions that followed.

The conference program included a total of 36 oral presentations, in addition to the Keynote lecture, organised into seven sessions over the two days of the conference. The poster session was again strong with 26 submissions accepted for display and dialogue on the evening of February 11th; the cum laude award went to Dr. Bin Zheng Ph.D. and colleagues from the University of Pittsburgh for their poster on “Prediction of near-term breast cancer risk using a Bayesian belief network.”

The workshop held the first evening of the conference was entitled “ROC Analysis: A tribute to Charlie Metz and an assessment of the State of the Art.” The workshop served as a commemoration of the life and career of the late Prof. Charles Metz, Ph.D., from the University of Chicago, as well as an assessment of the field he did so much to develop and promote. Four speakers gave presentations that ranged from describing the arc of Prof. Metz’s life, to the specific topics in ROC analysis that appear to be driving research at this time. The speakers were Prof. Yulei Jiang, Ph.D., from the University of Chicago, Prof. Harrison Barrett Ph.D. from the University of Arizona (standing in for Dr. Kyle Myers of the FDA who could not attend), Prof. Stephen Hillis, Ph.D., of the University of Iowa, and Dr. Brandon Gallas, Ph.D., of the FDA. Their presentations both reminded the audience of the loss to our community in Dr. Metz’s passing, but also managed to convey the gratitude that so many felt to have had the chance to work and interact with him, as well as painted a bright future for the field that he dedicated so much of his career to.

Craig K. Abbey
Claudia Mello-Thoms