

IASIM-14 Program

Wednesday December 3rd 2014

10.00 - 19.00 Registration

14.30 - 15.00 Opening

Session 1 – In memoriam of Jim Burger

15.00 - 15.30 Paul Geladi (SLU), “Reference standards: present and future”

15.30 - 16.00 Remembering Jim Burger: a colleague and a friend

16.00 - 16.30 Coffee Break + Poster Session

Session 2 – Chemometrics & Data Processing I

16.30 - 17.30 Plenary Lecture: Harald Martens (NTNU), “Measurement and modelling in six domains: (Time-, space- & composition) x (position & position change)”

17.30 - 17.55 Anna de Juan (University of Barcelona), “The multiset concept in image analysis: merging samples, spectroscopic techniques and algorithms”

17.55 - 18.20 Neal Gallagher (Eigenvector Research Inc.), “Synergy of target and anomaly detection in hyperspectral images”

18.20 - 18.40 Mario Li Vigni (University of Modena and Reggio Emilia), “Wavelet-enhanced multivariate image analysis for the food and materials sciences”

19.00 - 21.00 Welcoming Cocktail

Thursday December 4th 2014

08.30 - 13.00 Registration

Session 3 (Gordon-like) – Superresolution

09.00 - 09.50 Ludovic Duponchel (University of Lille), “The super-resolution concept: pushing the limits of hyperspectral spectroscopic imaging”

09.50 - 10.05 Discussant

10.05 - 10.30 Discussion from the floor

10.30 - 11.00 Coffee Break + Poster Session + Presentation by LOT-Quantum Design & Specim

Session 4 – Chemometrics & Data processing II

11.00 - 11.25 C. Ruckebusch (University of Lille), “A chemometric approach to single-molecule superresolution imaging. From spatial to spectral selectivity.”

11.25 - 11.45 A. Ulrici (University of Modena and Reggio Emilia), “Exploration of datasets of hyperspectral images”

11.45 - 12.05 N. Gorretta (IRSTEA), “A spectral-spatial approach for hyperspectral image classification using spatial regularization on supervised score image”

12.05 - 12.25 S. Kucheryavskiy (University of Aalborg), “Analysis of hyper spectral images using spectral features calculated for blocks of pixels”

12.25 - 12.45 J.P. Wold (Nofima), “Strategies for multivariate regression and classification in on-line hyperspectral imaging systems”

12.45 - 13.00 A. Gowen (University College Dublin), “Hyperspectral image regression: model calibration and optimisation”

13.00 - 14.30 Lunch + Poster Session

Session 5 – Instruments and Remote Sensing

14.30 - 15.10 Keynote: Morgan L. Cable (JPL-NASA), “Understanding Worlds through 30 years of Spectral Imaging”

15.10 - 15.35 J.M. Carstensen (Danish Technical University), “Can reflectance spectral imaging and fluorescence spectral imaging be effectively combined?”

15.35 - 16.00 S. Marshall (University of Strathclyde), “Folding PCA for feature extraction in remote sensing”

16.00 - 16.15 S. Blaaberg (Norsk Elektro Optikk AS), “The high-resolution integrated VNIR-SWIR airborne hyperspectral camera system HySpex ODIN-1024”

16.15 - 16.30 E. Guyot (Telops), “Airborne Midwave and Longwave Infrared Hyperspectral Imaging of Gases”

16.30 - 17.00 Coffee Break + Poster Session

Session 6 – Food & Agriculture

17.10 - 17.30 D. Airado-Rodriguez (Nofima), “Imaging photoreactions, chemical constituents and sensory properties of complex intact samples via imaging of autofluorescence”

17.30 - 17.50 R. Calvini (University of Modena and Reggio Emilia), “Detection of contamination by aflatoxins on apricot kernels using NIR–hyperspectral imaging”

17.50 - 18.10 P.J. Williams (University of Stellenbosch), “Spectral imaging: a tool for maize grading”

18.10 - 18.25 P. Vermeulen (CRA-W), “Detection of plant contaminants in whole grains by NIR technology”

18.25 - 18.40 M. Corti (University of Milan), “The potential of imaging spectroscopy to estimate nitrogen and water content in maize leaves”

18.40-19.00 Software demonstration: PLS Toolbox + MIA (Neal Gallagher, Eigenvector Research)

20.30 Social Dinner at “Vecchia Osteria del Gelsomino” (Via del Gelsomino, 68 – Rome)

Friday December 5th 2014

Session 7 (Gordon-like) – Biomedical Applications

09.00 - 09.35 Neeta Sinnappah-Kang (Betty Cowan Research and Innovation Center), “Fingerprinting leukemic blood cells and multiantigen immunohistochemistry in brain tumor samples with chromogenic stains: plane scan spectral imaging in diagnostics”

09.35 - 10.10 Christoph Krafft (Leibniz Institute of Photonic Technology), “Overview and Perspectives on Raman and Infrared Spectroscopic Imaging for Brain Tumor Diagnosis”

10.10 - 10.30 Discussion from the floor

10.30 - 11.00 Coffee Break + Poster Session

Session 8 – Materials & Cultural Heritage

11.00 - 11.25 J. Linderholm (Umeå University), “Archaeology, near infrared spectroscopy and imaging combined with four levels of chemometrics”

11.25 - 11.45 J. Sandak (IVALSA), “Measuring wood with hyperspectral imaging”

11.45 - 12.00 I. Burud (NMBU), “Outdoor and indoor hyperspectral NIR imaging of wooden surfaces”

12.00 - 12.15 M. Calderisi (Archa), “Commercial black dyestuff supplier selection”

12.15 - 12.30 R. Palmieri (University of Rome La Sapienza), “Hyperspectral imaging applied to demolition waste: recycled products quality control”

12.30 - 12.45 C. Miliani (CNR-ISTM), “Chemical imaging of painting surfaces in the mid-IR range”

12.45 - 13.00 G. Capobianco (University of Rome La Sapienza), “Hyperspectral imaging applied to diagnostics and conservation: a methodological approach for pictorial layer characterization”

13:00 - 13.10 Closing

13.10 - 15.00 Lunch