

**DIAGORA  
Centre de Congrès et d'Exposition. 150, rue Pierre Gilles de Gennes  
31670 TOULOUSE – LABEGE**



**SLIDES**

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| **Tuesday 26th November**   |  |  |  | | --- | --- | --- | |  | **Author and Title** |  | | **10:00** | **TUTORIAL** |  | |  | **Photon-number-resolving image sensors** | |  | *L. Durdevic – Hamamatsu Photonics, Paris - France* | |  |  |  | | **SESSION** | *Low Flux* |  | |  | *Chair: N. Nelms ESA* |  | |  |  |  | | **10:50** | **Analysis of Temporal Noise of 1×2 Shared Pixel Architecture for On-Chip Averaging and Summing** |  | |  | *H. Uppal, A. Kumar, S. Gopalakrishna, R. Ispasoiu – Onsemi, Intelligent Sensing Group* | |  |  |  | | **11:10** | **Radiation Effects in Quanta Image Sensors** |  | |  | *J. Krynski, A. Neyret, A. Le Roch, V. Goiffon – ISAE-SUPAERO, Toulouse, France V. Bernard, V. Lalucaa, A. Materne, C. Virmontois – CNES, Toulouse, France* | |  |  |  | | **SESSION** | *Radiations* |  | |  | *Chair: S. Rizzolo Airbus D&S* |  | |  |  |  | | **11:30** | **Radiation test results on a large COTS CMOS Global Shutter Image sensor** |  | |  | *A. Materne, C. Virmontois, JP. Millerioux, R. Ecoffet – CNES , Toulouse, France A. Maillard - Astek, Toulouse, France*  *L. Pelissier – Expleo Group, Toulouse, France V. Chazal, Thales Six GTS, Toulouse, France* | |  |  |  | | **13:40** | **In-Flight Hot Pixels and Random Telegraph Signal in Aeolus Accumulation CCDs Operated at Low Temperature** |  | |  | *A. Plocina, V. Goiffon, O. Marcelot, A. Salih Alj, and A. Antonsanti – ISAE-SUPAERO, Toulouse, Fr D.Marchais, O. Saint-Pe, S. Rizzolo - AIRBUS D&S, Toulouse, France J. Pratlong, R. Bell - Teledyne e2v, Chelmsford, UK* |  | |  |  |  | | **14:00** | **TNID and Heavy Ions Irradiations Study on the GigaPyx COTS CIS sensor** |  | |  | *J. Michelot, M. Douix, JB. Mancini, M. Guillon – Pyxalis, Moirans, France K. Melendez, C. Ravinet, M. Jouans, G. Estaves, R. Marec, S. Demiguel – Thales Alenia Space, Cannes, France A. Materne, C. Virmontois - CNES, Toulouse, France* |  | |  |  |  | | **14 :20** | **Displacement Damage Induced Dark Current and**  **Random Telegraph Signal in P-Type Deep-Trench Pinned Photogates** |  | |  | *A. Antonsanti, A. Salih Alj, A. Le Roch, V. Goiffon- ISAE-SUPAERO, Toulouse Fr V. Malherbe, P. Roche, A. Tournier – STmicroelectronics, Crolles, France L.D. Ryder, JM. Lauenstein - NASA GSFC, USA C. Virmontois – CNES, Toulouse, France* | |  |  |  | | **14 :40** | **Displacement Damage Effects on a CDTI-based CCD-on-CMOS: Dark Current and Charge Transfer Inefficiency** |  | |  | *A. Salih Alj, A. Antonsanti, A. Le Roch, P. Magnan, V. Goiffon – ISAE-SUPAERO, Toulouse, France P. Touron, F. Roy, A. Tournier – Stmicroelectronics, Crolles, France*  *S. Demiguel – Thales Alenia Space, Cannes, France J. Michelot – Pyxalis, Moirans, France V. Lalucaa, C. Virmontois, CNES, Toulouse, France* | |  |  |  | |  |  |  | |  |  |  | |  |  |  | | **15 :00** | **Radiation tolerant event-based asynchronous image sensor** |  | |  | *P. Adamiec, E. Cordero Garrido – ALTER TECHNOLOGY, Tres Cantos, SPAIN J.A. Leñero, R. Gómez Merchán, R. del la Rosa Vidal - Institute of Microelectronics of Seville (IMSE-CNM), CSIC-Universidad de Sevilla, Seville, Spain.* | |  |  |  | | **SESSION** | *Technology Developments* |  | |  | *Chair: K. Minoglou ESA* |  | |  |  |  | | **15:50** | **Enhanced optical filter technologies for compact multi-mode spectral imaging payloads for earth observation** |  | |  | *B. Delauré, B.Geelen, K. Tack, W. Charle – IMEC, Leuven, Belgium* | |  |  | |  |  |  | | **16:10** | **Process of linear variable filter designed for compact imaging spectrometer for space observatory** |  | |  | *C. Jamin, A. Arribehaute, JP. Nieto - Univ. Grenoble Alpes, CEA, Leti, Grenoble, France A. Carcenac, S. Gousset, E. Le Coarer - Institut de Planétologie et d’Astrophysique de Grenoble, Saint-Martin-d’Hères, France,* | |  |  |  | | **16:30** | **Recent Multispectral Sensors Developments for Space Applications** |  | |  | *S. Tisserand, T. Berthou, M. Hubert, V. Sauget, S. Gautier, A. Faiola, B. David – SILIOS Technologies, Peynier, France* | |  |  | |  |  |  | | **16 :50** | **Multispectral Cameras for Moon Rover** |  | |  | *J. Bezine, MC. Vassal, W. Durand-Mouallem – 3DPlus, Buc, France JM. Belloir, C. Virmontois - CNES Toulouse, France S. Tisserand, M. Hubert, S. Gautier, V. Sauget – SILIOS Technologies , Peynier, France K. Tack, B. Delaure, W. Charle - IMEC, Leuven, Belgium R. Ligot, JL. Dewandel – LAMBDA-X, Nivelles, Belgium LS. How – Adveotec, Evry Courcouronnes, France* | |  |  |  | |  |  |  | | **17 :10** | **Teledyne e2v technology developments: CIS120, CIS220 (HiRho) and CIS300 (Large Area CMOS) performance results** |  | |  | *G. Tsiolis – Teledyne e2v, Chelmsford, UK* | |  |  |  | | **17:30** | **A monolithic thin-film image sensor with lead sulfide quantum**  **dots coated on CMOS silicon readout for wide-spectral imaging** |  | |  | *CM. Zhang, R. Quaglia, P. Blanca Cruz, PF. Ruedi - CSEM, Neuchatel, 2002, Switzerland*  *A.Shulga, V. Goossens – QDI Systems, Groningen, The Netherlands A. Al-Haj Husain, B. Stadlinger - Clinic of Cranio-Maxillofacial and Oral Surgery, Center of Dental Medicine, University of Zurich, Switzerland* | |  |  | |  |  |  |  |  | | --- | |  | |