



Day 1 - Tuesday, 28 January 2014	
9:00	REGISTRATION – MORNING COFFEE
10:00	PLENARY SESSION
	WELCOME ADDRESSES
	3AF Welcome
10:00	Michel Scheller , 3AF President Jacques Lonnoy , OPTRO 2014 Chairman, 3AF (FR)
	INTRODUCTION TO OPTRO2014
10:10	“The atoms which came in from the cold: new sensors, new calculators” Jean Dalibard - Member of the French Academy of Sciences, Director of Research at CNRS, Professor at the “Collège de France”, Professor at the “Ecole Polytechnique” (FR)
	KEYNOTE ADDRESSES Europe and Security
10:50	“Optro Electronics at ESA” Franco Ongaro - Director of Technical and Quality Management (D/TEC), European Space Agency
11:10	“European Innovative Research - Co-operation in Defence Electro-Optics” Vincenzo Rinaldi - Moderator of Captech IAP3 Optical Sensor Systems & Signal Processing, European Defence Agency
11:30	“European Photonics Research and Innovation in HORIZON 2020” Ronan Burgess – Deputy Head of Unit, Unit A1 “Photonics” Directorate - General for Communications Networks, Content and Technology, European Commission
11:50	“Global Security Research at the French National Research Agency” Xavier Dramard – CSOSG Strategy Directorate, French Armament Directorate DGA & National Research Agency ANR (FR)
12:10	“Research, Innovation and Industry on Security at National and European Level” François Murgadella - Deputy Head of Security Technologies General Secretariat for Defence and National Security SGDSN – Dept. of French Prime Minister (FR)
12:30	LUNCH BREAK

	SYMPOSIUM ROUND TABLE Moderator: Jean-François Coutris – 3AF
14:00	Optronics, Key of Intelligence Gathering Lessons learned presented by Charles de Lauzun , “Centre National d’Etudes Spatiales” CNES (FR): Technical Challenges for Space Optronics Colonel Fabrice Grandclaudon , French Air Force EMAA (FR): Strategic Value of Optronics Laurent Glasgall , French Armament Directorate DGA (FR): Procurement related to last engagements
	OPTRO 2014 HONORARY PRESIDENT KEYNOTE ADDRESS Introduced by: Michel Scheller – President of 3AF (FR)
15:40	Jean-Yves Le Gall – President of the “Centre National d’Etudes Spatiales” CNES (FR)
16:00	COFFEE BREAK
	KEYNOTE ADDRESSES (CONTINUED) Defence and Security Chairwoman: Patricia Cymbalista – Onera (FR)
16:30	“Photonics and Defence - Supporting innovation and preparing future” Hisham Abou-Kandil – Head of Office for Advanced Research and Innovation MRIS, French Armament Directorate DGA (FR)
16:50	“Recent Developments in EO Sensing” Richard Hollins - Senior Fellow, Defence Science Technology Laboratory (UK)
17:10	“Passive and Active Imaging Devices for Defence and Security” Reinhard Ebert - Divisional Director - Photonic and Optronic Systems, Fraunhofer IOSB (DE)
	SPECIAL KEYNOTE ADDRESS
17:30	“The Challenge of Human Targets in Asymmetric Warfare” Albert Fenner Milton - Emeritus, Night Vision and Electronic Sensors Directorate, US Army (USA)
18:10	END OF FIRST DAY PROGRAMME
20:00	GALA DINNER At Restaurant “58 Tour Eiffel” (optional)

Day 2 - Wednesday, 29 January 2014

	Room 1	Room 2	Room 3
	IMAGING & SYSTEMS – I	SPACE	LASER SENSORS & SYSTEMS
	CHAIRMAN: T. Dupoux, SAFRAN Sagem, FR	CHAIRMAN: B. Cugny, CNES, FR	CHAIRMAN: P. Adam, DGA / MRIS, FR
8:40	<i>HEMISPHERICAL FPA</i>		<i>PETAWATT KEYNOTE</i>
	2956730 Thin Hemispherical Cooled and Uncooled Infrared Focal Plane Arrays for Compact Cameras Tekaya, K.; Fendler, F. ¹ ; Inal, K. ² ; Massoni, E. ² ; Druart, G. ³ ; Henry, D. ¹ ¹ CEA LETI, Minatec, FR ² CEMEF, FR ³ Onera, FR		2955947 High Repetition Rate PetaWatt Titanium Sapphire Laser System for Laser Plasma Acceleration Lureau, F.L. Thales Optronique S.A.S, FR
9:00	<i>PANORAMIC IMAGING</i>	<i>VIDEO PROCESSOR</i>	<i>HIGH ENERGY LASER</i>
	2935044 High Resolution Panoramic Images with Megapixel MWIR FPA Leboucher, V ; Aubry, G HGH SYSTEMES INFRAROUGES, FR	2967307 Operationnal Video Processor for High Precision Space Remote Sensing : development and performances Leyre, X. ; Di Santo, S.; Neveu, C. Thales Alenia Space, FR	2956056 Highly Scalable Interferometric Technique for Coherent Fiber Combining Antier, M. ¹ ; Bourderionnet, J. ¹ ; Lallier, E. ¹ ; Larat, C. ¹ ; Lenormand, E. ¹ ; Brignon, A. ¹ ; Primot, J. ² ¹ Thales Research & Technology, FR ² Onera, FR
9:20	<i>PLANAR OPTICS</i>	<i>SPACE DETECTOR</i>	<i>MEDIUM AND HIGH ENERGY LASER</i>
	2953844 Conception of a Cheap Infrared Camera using Planar Optics Grulois, T. ; Druart, G. ;Guerineau, N. Onera, FR	2939024 Space Developments of Infrared Detectors from Visible to VLWIR at Sofradir Chorier, P.; Pidancier, P.; Jamin, N.; Fieque, B.; Leroy, C.; Delannoy, A. Sofradir, FR	2965592 Passively Q-switched Nd:YAG laser for application in military designators Smillie, M. W.; Silver, M.; Lee, S. T.; Cook, T. J. Thales UK, UK
9:40	<i>SUPER CAMERA KEYNOTE</i>	<i>SPACE DETECTOR</i>	<i>MEDIUM AND HIGH ENERGY LASER</i>
	2965097 SuperCam Budin, J.; Maygnan, M.; Jacquelin, F.; Nowodzienski, P. Safran – Sagem, FR	2956119 SWIR Focal Plane Array Needs and Developments for Low Light Level Space Applications Tauziède, L. ; Bardoux, A.; Geoffray, H. Centre National d'Etudes Spatiales, FR	2965597 Actively and Passively Q-switched Diode-Pumped Er:YAG laser emitting at 1645 nm and 1617 nm Aubourg, A. ¹ ; Aubry, N. ² ; Didierjean, J. ² ; Balembois, F. ¹ ; Georges, P. ¹ ¹ Institut d'Optique, FR ² FiberCryst, FR
10:00	<i>MINI CAMERA</i>	<i>SPACE IMAGING</i>	<i>MEDIUM AND HIGH ENERGY LASER</i>
	2935231 Mini 320, the Miniaturized Sight in Soldato Futuro Program Landini, A. ;Bardazzi, R. ;Sardelli, M. ;Puntri, S. Selex ES, IT	----- Use of Satellite Imaging to Understand Earth's Surface Features: A roadmap Güllüoğlu, S.-S. Istanbul Arel University, TR	2966156 High Power Operation of Ultra-Broadband Laser Beam Combiner Stacey, C; Stacey, C; Clarke, R BAE Systems - Advanced Technology Centre, UK
10:20	<i>COFFEE BREAK AND EXHIBITION</i>		

Day 2 - Wednesday, 29 January 2014

Room 1

Room 2

Room 3

IMAGING & SYSTEMS – I

SENSORS & COMPONENTS - I

LASER SENSORS & SYSTEMS

CHAIRMAN: J.-C. Fontanella, TOSA, FR

CHAIRMAN: O. D'Almeida, SAFRAN Sagem, FR

CHAIRMAN: D. Dolfi, TRT, FR

10:50

ACTIVE IMAGING

LASER RADAR KEYNOTE

2935190
Flash Module Add-on to enhance any Standard Camera with NIR/SWIR gated active Imaging Capacity
 Grasser, R.
 CILAS, FR

Low-light CMOS in the quest for imaging in complex light and climatic conditions
 Powell, G.
 e2v, FR

2956200
Performance of a new Eye-Safe 3D Laser Radar APD Line Scanner
 Eberle, B.¹; Kern, T.¹; Schwanke, U.²; Nowak, H.²
¹Fraunhofer IOSB, Ettlingen, DE
²EADS Deutschland GmbH, Cassidian, Immenstaad, DE

11:10

SWIR/VIS

SI PHOTOMULTIPLIER

DIRCM

2934429
Multispectral SWIR/VIS continuous Zoom Camera with integrated Laser Range Finder based on Single Optical Channel Design for Future Submarine Optronics Mast Applications
 Huebner, M.; Gerken, M.; Achtner, B.; Kraus, M.; Muenzberg, M.; Cassidian Optronics GmbH, DE

2966119
SiPM : an alternative to PMTs
 Boireau, D.
 Excelitas Technologies, CA

2934441
OPO-based DIRCM Source Technology and Associated Field Trials
 Kieleck, C.¹; Hildenbrand, A.¹; Berrou, A.¹; Eichhorn, M.¹;
 Lascaud, M.²; Houles, P.²; Colin, C.²; Brehon, G.³
¹ISL, FR - ²DGA MI, FR - ³DGA EV, FR

11:30

3D IMAGING KEYNOTE

SWIR

ILLUMINATION-LRF

2952380
3D Imaging Demonstrator (DUMAS) Main Results
 Riviere, P. Thales Optronique SAs, FR

2966565
A low noise, extended dynamic range 1.3 Megapixel InGaAs array for increased situational awareness
 Vereecken, W.¹ ; Van Bogget, U.¹ ; Hooylaerts, P.¹ ; Vinelli, R.¹ ;
 Merken, P.¹ ; Vermeiren, J.¹
 Xenics nv, BE

2955950
High Energy Eye-Safe MOPA Laser for Laser Illumination and Range-Finding
 Larat, C.¹; Schwarz, M.¹; Lallier, E.¹; Durand, E.²
¹Thales Research and Technology, FR
²Thales Optronique SAS, FR

11:50

AIRBORNE TARGETING

SWIR KEYNOTE

DESIGNATOR

2953782
STRIX (TIGER Roof Mounted Sight) Improvements
 Kling, E. ; Renaudat, M.
 Sagem Defense Security, FR

2930312
Multi-Function InGaAs Detector for SWIR Imaging
 Shkedy, L.¹; Fraenkel, R.¹; Fishman, T.¹; Giladi, A.¹; Bykov, L.¹;
 Grimberg, I.¹; Ilan, E.¹; Vasserman, S.¹; Koifman, A.¹; Tuito, A.²; Ben-Ezra, M.²
¹SCD, IS - ²IMOD, IS

2965057
Low-cost, compact, STANAG-compatible laser target designator
 Lee, S.T.; Borthwick, A; Ross, A; McRae, I; Cook, T; Alexander, W.
 Thales UK, UK

12:10

FUSION

3-5µM DETECTOR

LRF

2966218
Threat recognition in complex environments: Gated Viewer images fused with thermal IR and an introduction of contextual dimming
 Smeelen, M.A.¹ ; Schwering, P.B.W.² ; Toet, A.² ; Loog, M.³
¹NL Ministry of Defence, NL
²TNO, NL - ³Delft University of Technology, NL

2956084
Tailoring Multi Spectral Absorption using CMOS Compatible MIM Resonator
 Palanchoke, U.; Boutami, S.; Gidon, S.
 CEA LETI Minatec Campus, FR

2965687
Ultra-compact eye-safe laser transmitter for range finding and active imaging
 Mark Silver, M.¹; Cook, T.J.¹; Lee, S.T.¹; Alexander, W.¹; Wills, S.¹; Jackson, D.¹; Darlow, M.¹; Horsfall, B.¹; Cox, M.C.²;
 Wilson, I.W.²; Norman, A.M.²
¹Thales UK, UK - ²Gooch and Housego PLC, UK

12:30

LUNCH BREAK AND EXHIBITION

Day 2 - Wednesday, 29 January 2014			
	Room 1	Room 2	Room 3
	IMAGING & SYSTEMS – I	SENSORS & COMPONENTS - I	LASER SENSORS & SYSTEMS
	CHAIRMAN: R. Jalin, Onera, FR	CHAIRMAN: P. Castelein, CEA LETI, FR	CHAIRMAN: R. Ebert, Fraunhofer ISOB, DE
14:00	<i>MTF</i>	<i>InSb</i>	<i>ATOMICS CLOCK KEYNOTE</i>
	2964927 MTF issues in small pixel pitch quantum IR detectors Gravrand, O. ¹ ; Baier, N. ¹ ; Ferron, A. ¹ ; Rochette, F. ¹ ; Berthoz, J. ² ; Rubaldo, L. ² ; Cluzel, R. ² ¹ CEA LETI-Minatec, FR ² Sofradir, FR	2931891 Large Format InSb Infrared Detector with 10 <micro>m Pixels Gershon, G.; Albo, A.; Eylon, M.; Cohen, O.; Calahorra, Z.; Brumer, M.; Nitzani, M.; Avnon, E.; Aghion, I.; Kogan, I.; Ilan, E.; Tuito, A.; Ben Ezra, M.; Shkedy, L. SCD, IS	2939315 Generation of a high-purity Microwave Signal from a Dual-Frequency OP-VECSEL for CPT-based Atomic Clocks Dumont, P. ¹ ; Camargo, F A. ¹ ; Danet, J.-M. ² ; Holleville, D. ² ; Guerandel, S. ² ; Girard, N. ³ ; Baili, G. ³ ; Morvan, L. ³ ; Pilllet, G. ³ ; Dolfi, D. ³ ; Sagnes, I. ⁴ ; Georges, P. ¹ ; Lucas-Leclin, G. ¹ ¹ Laboratoire Charles Fabry, FR ² LNE-SYRTE, Observatoire de Paris, FR ³ Thales Research and Technology, FR ⁴ Laboratoire de Photonique et de Nanostructures, FR
14:20	<i>MULTISENSORS</i>	<i>HOT DETECTOR</i>	<i>DAZZLING</i>
	2956653 Analysis of Multi-Sensor, Multi-Spectral, active and passive Imaging Measurements Hamoir, D. ¹ ; Barbé, S. ¹ ; Fracès, M. ¹ ; Vaudelin, O. ¹ ; Tanguy, B. ¹ ; Thouin, E. ¹ ; Grönwall, C. ² ; Steinvall, O. ² ; Larsson, H. ² ; Anselem, E. ² ; Repasi, E. ³ ; Lutzmann, P. ³ ; Göhler, B. ³ ; Willutzki, F. ³ ¹ Onera FR - ² FOI (Swedish Defence Research Agency), SE ³ Fraunhofer-IOSB, DE	2965713 Progress in HOT MCT at Selex-ES: Towards a 1 Watt IDCA Pillans, L Selex ES, UK	2939395 Dazzling Sensitivity Analysis of a Microbolometer Array on an Infrared Laser Irradiation Breadboard Durécu, A.; Fleury, D.; Goular, D.; Planchat, C.; Rommeluère, S.; Bourdon, P. Onera, FR
14:40	<i>PARAMETERS</i>	<i>HOT DETECTOR KEYNOTE</i>	<i>LRF TEST</i>
	2934412 Military Optical Systems: Specification Parameters and their Influence on Tolerances and Production Costs Achtner, B. ; Gerken, M. Cassidian Optronics GmbH, DE	2967621 Recent Progress in the Development of HOT MWIR-Detectors Wollrab, R. ; Schirmacher, W. ; Schallenberg, T. ; Wendler, J. ; Ziegler, J. AIM INFRAROT-MODULE GmbH, DE	2951830 Station for Testing Performance of Laser Range Finders Chrzanowski, K. Military University of Technology, PO
15:00	<i>TARGET ACQUISITION KEYNOTE</i>	<i>COOLED DETECTOR</i>	<i>CERAMICS</i>
	2967244 The ideal Target Acquisition model: where on earth do I find it? Bijl, P. TNO, NL	2956926 Technology and Market Trends for Cooled Infrared Detectors and Cameras Robin, T. ; d'Humières, B. Tematys, FR	2966206 Yb3+ doped CaF2 ceramics: Synthesis, sintering process and laser properties Aballea, P. ¹ ; Gredin, P. ² ; Mortier, M. ³ ¹ CNRS/ENSCP, FR - ² UPMC/ENSCP, FR - ³ CNRS/ENSCP, FR
15:20	<i>TARGET ACQUISITION</i>	<i>HgCdTe KEYNOTE</i>	<i>3D IMAGING</i>
	2967250 An empirical TOD dataset for benchmarking synthetic Human Observer models and objective sensor performance test methods Bijl, P. ¹ ; Fanning, J.D. ² ; Kooi, F.L. ¹ ; Hogervorst, M.A. ¹ ¹ TNO, NL - ² NVEDS, US	2936945 Large Format, small pixel Pitch and hot Detectors at Sofradir Reibel, Y. ¹ ; Billon-Lanfrey, D. ¹ ; Vuillermet, M. ¹ ; Rubaldo, L. ¹ ; Costard, E. ¹ ; Destefanis, G. ² ; Decaens, G. ¹ ¹ Sofradir, FR - ² CEA LETI, FR	2966800 3D improved vision systems for taxi operation and obstacle detection under adverse conditions Riviere, N Onera, FR
15:40	<i>COFFEE BREAK AND EXHIBITION</i>		

Day 2 - Wednesday, 29 January 2014

Room 1

Room 2

Room 3

IMAGING & SYSTEMS – I

SENSORS & COMPONENTS - I

LASER SENSORS & SYSTEMS

CHAIRMAN: S. McGeoch, Thales Optronics Ltd, UK

CHAIRMAN: A. F. Milton, Emeritus NVESD, USA

CHAIRMAN: O. Squaglia, CILAS, FR

16:10 *AIRBORNE HYPERSPECTRAL KEYNOTE*

HgCdTe KEYNOTE

IMAGING LIDAR

2950115
SYSIPHE, an Airborne Hyperspectral System from Visible to Thermal Infrared
Ferrec, Y.¹; Rousset Rouvière, L.¹; Coudrain, C.¹; Thétas, S.¹; Primot, J.¹; Fabre, S.¹; Baarstad, I.²; Fridman, A.²; Loke, T.²; Blaaberg, S.²; Skauli, T.³
¹Onera, FR - ²NEO, NO - ³FFI, NO

2966167
MOVPE-grown HgCdTe for advanced detectors at Selex-ES
Cripps, S.; Maxey, C.; Baker, I.; Hipwood, L.
Selex-ES Ltd, UK

2983939
A cost-effective 3D imaging lidar system
Riu, J. ; Royo, S.
Centre for Sensors, Instruments and Systems Development – Universitat Politècnica de Catalunya, ES

16:30 *HYPERSPECTRAL*

HgCdTe KEYNOTE

SOLID STATE LASER

2929684
Virtual Cold Filtering - Innovative Spectral Imaging Technique
Cohen, SC
CI Systems, IS

2956650
Status of Latest HgCdTe Infrared technology Developments in FR
Castelein, P.¹; Gravrand, O.¹; Destefanis, G.¹; Mollard, L.¹; Rothman, J.¹; De Borniol, E.¹; Brellier, D.¹; Kerlain, A.²; Rubaldo, L.²; Vuillemeret, M.²
¹CEA LETI , Minatec, FR - ²Sofradir, FR

2970410
Inherently Antiphase Noise Free Dual-Frequency Solid-State Laser
El Amili, A.¹ ; Loas, G.¹ ; De, S.² ; Schwartz, S.³ ; Bretenaker, F.² ; Alouini, M.⁴
¹Institut de Physique de Rennes, FR - ²Laboratoire Aimé-Cotton, CNRS-Université Paris, FR - ³Thales Research and Technology, FR - ⁴Institut de Physique de Rennes, FR

16:50 *ACTIVE POLARIMETRIC IMAGING KEYNOTE*

HgCdTe

SOLID STATE LASER

2954303
Active Polarimetric Imaging with Adaptive Contrast Optimization
Goudail, F.¹; Anna, G.¹; Boffety, M.¹; Bertaux, N.²; Galland, F.²; Vannier, N.³; Feneyrou, P.³
¹Laboratoire Charles Fabry, FR - ²Institut Fresnel, FR
³Thales Research and Technology, FR

2970419
Cluster Reduction and Improved Operability for MBE HgCdTe on Silicon IR FPAs
Rybnicek, K.
Raytheon Vision Systems, USS

2970411
Self-Intensity-Regulated Solid state Laser by Two Photon Absorption : experiment and modeling
El Amili, A. ; Kervella, G. ; Alouini, M.
Institut de Physique de Rennes, FR

17:10 *POLARIMETRIC IMAGING*

HgCdTe

DEEP UV LASER

2967942
Depolarization Sensing by Orthogonality Breaking: a microwave-photonics approach for snapshot polarimetric imaging
Fade, J. ; Schaub, E ; Alouini, M
Institut de Physique de Rennes, FR

2981322
HgCdTe APDs for imaging and remote sensing
Rothman, J.1 ; Foubert, K.¹ ; Lasfargues, G.¹ ; Largeton, C.¹ ; Péré-Laperne, N.² ; Kerlain, A.² ; Gibert, F.³ ; Lemounier, F.³ ; Dumas, A.³
¹CEA LETI , Minatec, FR - ²Sofradir, FR
³Laboratoire de Météorologie Dynamique, FR

2970408
Development of a compact, high energy laser source at 236 nm
Deyra, L.
Institut d'Optique, FR

17:30 *POLARIMETRIC IMAGING*

2970403
Polarimetric signatures for vehicle detection in the long wave infrared
Dickson, C.¹ ; Wallace, A. M.² ; Kitchin, M.¹ ; Connor, B.¹
¹Thales UK, UK - ²School of Engineering & Physical Sciences, UK

17:50 *END OF SECOND DAY PROGRAMME*

18:10 OPTRO 2014 PhD Best Paper Award and OPTRO PhD Committee Certificate(s)
OPTRO Award
COCKTAIL SOCIAL EVENT

Day 3 - Thursday, 30 January 2014

	Room 1	Room 2	Room 3
	IMAGING & SYSTEMS – II	SENSORS & COMPONENTS - II	SIMULATION
	CHAIRMAN: P. Bijl, TNO, NL	CHAIRMAN: J. Rollin, Thales Angenieux,FR	CHAIRMAN: S. Berthier, MBDA, FR
8:20	<i>IRST</i>	<i>OPTICS</i>	
	2953793 Infrared Search and Track for Military Helicopters Kling, E. ;Renaudat, M. ; Thiebaut, M. Sagem Defence Security	2933853 REACH and RoHS: is this a Threat for the Optics Industry? Rollin, J. Thales Angénieux, FR	
08:40	<i>AIRBORNE IMAGING</i>	<i>OPTICS</i>	<i>INFRARED SPECTROMETER</i>
	2968112 EVS (Enhanced Vision System) for Military and Commercial applications Guyomard, P. Thales Optronique, FR	2966140 Wave-mixing in gain media (Nd:YVO4) for acousto-optic imaging Jayet, B.; Huignard, J.-P. ² ; Ramaz, F. ¹ ¹ Institut Langevin - ESPCI, FR ² Jphopto, FR	2940749 Modeling of an Infrared Stationary Micro-Spectrometer integrated on a Focal Plane Array Mouzali, S.; Lefebvre, S.; Rommeluere, S.; Ferrec, Y.; Primot, J. Onera, FR
09:00	<i>PLUME MEASUREMENT</i>	<i>OPTICS</i>	<i>INFRARED MODELING KEYNOTE</i>
	2950104 High Acquisition Rate Infrared Spectrometers for Plume Measurement Ferrec, Y.; Boischot, A.; Guérineau, N.; Henry, D.; Langlois, S.; Lavigne, C.; Lefebvre, S.; Roblin, A.; Rommeluère, S. Onera, FR	2964931 Latest developments at REOSC : thin glass shells for large Adaptive Optics and high performance IR optics & coatings for space & Defence Geyl, R. Reosc, FR	2934465 Survey of Modern Thermal and Infrared Modeling Techniques Packard, C. ; Curran, A. ThermoAnalytics, US
09:20	<i>COUNTERMEASURES</i>	<i>COATINGS KEYNOTE</i>	<i>INFRARED MODELING KEYNOTE</i>
	2920679 SCARLET - Test System for multiple IR Countermeasures Mazzoli, R. ; Albertoni, A. ;Tafuto, A. Elettronica SpA, IT	2956133 Research on Laser Protection at the Fraunhofer IOSB Ritt, G. ; Eberle, B. Fraunhofer IOSB, DE	2951728 MIRA - An IR-Signature Model for Unmanned Aerial Vehicles (UAV) Lindermeir, E. DLR, DE
09:40	<i>FLARES KEYNOTE</i>	<i>COATINGS</i>	<i>INFRARED MODELING</i>
	2966201 IR Flares specification and evaluation: extension to new bandwidths Lecuyer, I. ¹ ; Hummel, F. ¹ ; Godard, N. ² ; Doz, S. ³ ; de Lataillade, A. ⁴ ¹ DGA MI, FR - ² DGA EV, FR - ³ DGA TAFR - ⁴ LACROIX, FR	2966298 High performances coatings on large dimension with magnetron sputtering technique Grèzes-Besset, C. ; Chauveau, G. ; Valette, N. ; Krol, H. ; Torricini, D. Cilas, FR	2931250 Analysis Tools of IR Signature in SE-Workbench-EO Latger, J. ¹ ; Le Goff, A. ² ; Cathala, T. ¹ ¹ OKTAL-SE, FR ² DGA IS, FR
10:00	<i>COUNTERMEASURES</i>	<i>COATINGS</i>	<i>INFRARED MODELING</i>
	2977182 Infra-Red Counter-Measures of Aircrafts against the emergent Infra-Red imaging missile threat: expertise methodology and tools Mellier, B. DGA-MI, FR	----- Optical IR coatings for application at room temperature and in cryogenic range Robert, P. ; Ferme, J.-J, Thales SESO, FR	2966277 Synthetic image generation for seeker development Duley, P ; Luckraft, J MBDA, UK
10:20	<i>COFFEE BREAK AND EXHIBITION</i>		

Day 3 - Thursday, 30 January 2014

Room 1

Room 2

Room 3

IMAGING & SYSTEMS – II

EMERGING TECHNOLOGIES

SIMULATION

CHAIRMAN: J. Bretes, FLIR ATS, FR

CHAIRMAN: J.-L. Meyzonnette, Consultant, FR

CHAIRMAN: G. Berginc, TOSA, FR

	<i>NIGHT VISION</i>	<i>MICRO/NANO TECHNOLOGIES</i>	<i>INFRARED MODELING</i>
10:50	<p>2935229 Night Mobility System (NIMOS) in the Soldato Futuro Program Saggia, N. ;Landini, A. ;Puntri, S. ; Selex ES, IT</p>	<p>2966261 Simplification of plasmonic lenses design based on wave interferences method Lévesque, Q.¹ ; Bouchon, P.¹ ; Pardo, F.² ; Haïdar, R.¹ ; Pelouard, J.-L.² ¹Onera, FR ²CNRS-LPN, FR</p>	<p>2931261 Improvements of SE-WORKBENCH-EO for the Infrared Real Time Rendering of Outdoor Scenes Cathala, T. ; Latger, J. OKTAL-SE, FR</p>
11:10	<i>NIGHT VISION</i>	<i>NANOTECHNOLOGIES</i>	<i>INFRARED MODELING KEYNOTE</i>
	<p>2951823 A Computerized Station for Testing Night Vision Devices Chrzanowski, K. Military University of Technology, PO</p>	<p>2935150 ITO Films deposited by Glancing Angle Deposition Technique: Relation between Nanostructuration and Optical/ Electrical Properties Dupeyrat, C.¹; Chantepie, T.¹; Girardeau, T.²; Paumier, F.²; Eyidi, D.²; Guérin, P.² ¹Sagem, FR ²Institut P' - Université de Poitiers, FR</p>	<p>2966329 Thermal modeling coupling between RadThermIR targets and SE-Workbench environment Le Goff, A. DGA Information superiority, FR</p>
11:30	<i>NIGHT VISION</i>	<i>PLASMONICS KEYNOTE</i>	<i>INFRARED MODELING</i>
	<p>2970416 Performance characterization of night vision equipment based on Triangle Orientation Discrimination (TOD) methodology Laurent, N.¹ ; Deltel, G.² ; Bijl, P.³ ¹Photonis FR SAS, FR ²Phoyonis Technologies SAS, FR ³TNO, NL</p>	<p>2956618 Hole-Array Plasmonic Filters for Efficient Ambient Light Sensing Girard-Desprolet, R.¹ ; Lhostis, S.¹ ; Boutami, S.² ; Frey, L.² ; Mornet, C.¹ ; Armand, M.² ¹STMicroelectronics, FR ²CEA –LETI, FR</p>	<p>2931285 A Semi-Automated Classification Method for Infrared Simulation Cathala, T.; Nissoux, C.; Dupuy, Y.; Marmelo, C.; OKTAL-SE, FR</p>
11:50	<i>NIGHT VISION KEYNOTE</i>	<i>MmW THz</i>	<i>INFRARED MODELING</i>
	<p>2935136 Supporting low light Operations with the Met Office Night Illumination Model (MONIM) Wilson, D ; Lewis, W. Met Office, UK</p>	<p>2970427 OEPLL-based ultra-stable millimeter-wave and THz oscillator Rolland, A. ; Brunel, M. ; Alouini, M. Institut de Physique de Rennes, FR</p>	<p>2935199 Ships in MerCUDA Bonafons, P. ; Monnier, G. ;Houssay, J. ;Cantero, E. ; Albert, A. ;Garnier, G. Alyotech, FR</p>
12:10			<i>INFRARED MODELING</i>
			<p>2935193 Optimizing Image Rendering Process of 3D Clouds in the infrared Domain Bonafons, P. ; Amram, S. ; Monnier, G. Alyotech, FR</p>
12:30	<i>LUNCH BREAK AND EXHIBITION</i>		

Day 3 - Thursday, 30 January 2014

Room 1

Room 2

Room 3

EPIC

SIGNAL & IMAGE PROCESSING

SIMULATION

CHAIRMAN: C. Lee, EPIC, FR

CHAIRMAN: J. Lonnoy, 3AF, FR

CHAIRMAN: G. Berginc, TOSA, FR

14:00

SIGNAL & IMAGE PROCESSING

INFRARED MODELING

2934688
Hyperspectral Radiance Simulations and Retrievals using the Havemann-Taylor Fast Radiative Transfer Code
 Thelen, J.-C.; Havemann, S.; Wong, G.
 UK Met Office, UK

2934732
The Havemann-Taylor Fast Radiative Transfer Code (HT-FRTC) as Part of NEON, the UK Met Office Tactical Decision Aid (TDA)
 Havemann, S.; Thelen, J.-C.; Lewis, W. - UK Met Office, UK

14:20

SIGNAL & IMAGE PROCESSING

INFRARED MODELING

2934839
Automatic load-balancing Approach for heterogeneous Platforms
 Deruyter, T. ; Manoutsis, P.
 Ecrin Systems, FR

2937014
Evaluation of Airborne and Satellite Electro-Optical Sensors Performances by use of High-Altitude Clouds Occurrence Climatology
 Caillault, K; Bizard, A; Lavigne, C.; Roblin, A.; Chervet, P.
 Onera, FR

14:40

SIGNAL & IMAGE PROCESSING

INFRARED MODELING

2935620
Correlation between Detector Level Measurements and Residual Fixed Pattern Noise for MWIR and LWIR Cooled Detectors
 Mariani, P. ;Zatti, S. ;Giunti, C. ;Sozzi, B. ;Guadagnoli, E. ;Porta, A. - Selex ES S.p.A., IT

2955496
IMOTEP, a GPU-based Software Simulating Optical Propagation through Turbulence: Latest Improvements and Evolutions
 Monnier, G. ; Amram, S. ; Duval, F.R. - Alyotech, FR

MEETING BETWEEN SMES AND MAJOR COMPANIES (optional)

15:00

SIGNAL & IMAGE PROCESSING - mmW

INFRARED MODELING

2966221
Optical nonlinearities in microwave photonic links: drawbacks and benefits.
 Pouget, L. ; Alouini, M.¹ ; Marceaux, A.² ; Merlet, T.²
¹Institut de Physique de Rennes, FR
²Thales Air Systems ,FR

2955915
Active and Thermal Imaging Performances under Bad Weather Conditions
 Bernard, E.¹ ; Renaudat, M.¹ ; Riviere, N.²
¹Sagem, FR
²Onera, FR

15:20

SIGNAL & IMAGE PROCESSING - SURFACE DEFECTS

INFRARED MODELING

2965647
Detection of Surface and Sub Surface Defects by Photothermal Deflection Technique
 Dhouib, A. ; Yacoubi, N.
 Institut préparatoire aux études d'ingénieurs, TU

2966149
1.5µm Flash Imaging System - Comparison between Field Trials and the TTPM (Targeting Task Performance Metric) predictive model
 Meyer, O.; Riehl, D.; Chevalier, P.; Astoux, F.
 DGA, FR

15:40

16:00

END OF OPTRO2014

CLOSURE DRINK