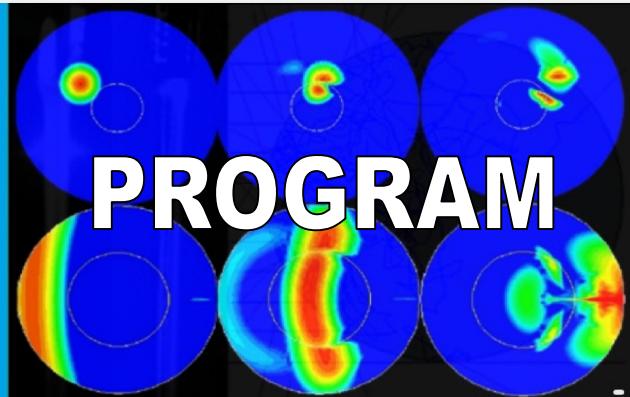




10th International Conference Series on  
Laser-light and Interactions with Particles  
August 25-29th, 2014, Marseille, France.



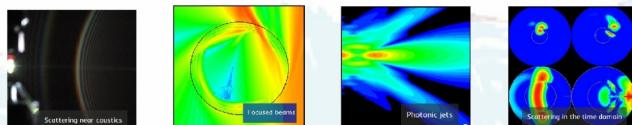
LIP 2014  
25-29th August 2014  
Marseille, France



## PROGRAM



# Laser-light and Interactions with Particles



Beam shape description,  
Far-field scattering,  
Time-resolved scattering,  
Mechanical effects of light,

Near fields and morphology-dependent-resonances,  
Complex shaped particles and aggregates,  
Multiple scattering in dense media,  
Optical particle sizing and characterization methods



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## PRELIMINARY PROGRAM, June, 23rd

Sunday 24th, 18h00-20h00 : Welcome drink

## MONDAY, 25th

8h30-10h00 Registration

10h00-10h30 Opening ceremony

### 10h30-11h10 Keynote Lecture

(AK-1) Surprises and anomalies in acoustical and optical scattering, Philip L. MARSTON

### 11h10-12h30 Session: Beam shape description (BS)

Chairs: Philip L. MARSTON, Farid G. MITRI

(BS-1) On the Description of Electromagnetic Arbitrary Shaped Beams : Beam Shape Coefficients versus Plane Wave Spectra, and vice versa, Gérard GOUESBET\* and James A. LOCK

(BS-2) Scattering of the Evanescent Components in the Angular Spectrum of a Tightly Focused Electromagnetic Beam by a Spherical Particle, James A. LOCK\*

(BS-3) Acoustics of Finite-Aperture Vortex Beams, Farid G. MITRI\*

(BS-4) Superpositions of equal-frequency ordinary Bessel beams: frozen waves for optical trapping and micromanipulation, Leonardo A. AMBROSIO\*

### 12h30-14h00 Lunch

### 14h00-15h40 Near-field and Resonances (NR)

Chairs: James A. LOCK, Zhen-Sen WU

(NR-1) Laser Emission from Random Gain Media with Bubble Structures, Takashi OKAMOTO\*, Shouhei MATSUSHITA and Masanori TAKABAYASHI

(NR-2) Influence of sinter necks on the spectral behaviour of ITO aggregates, Thomas WRIEDT\*, Jens HELLMERS, Krzysztof SKORUPSKI and Janusz MROCZKA

(NR-3) Phohotonic Jet Generated by Spheroidal Particle, Yiping HAN\*, Lu HAN and Wenjuan ZHAO

(NR-4) Near and Far Field Light scattering from silicon nitride microdisks, David McCLOSKEY\* and John F. DONEGAN

(NR-5) Laser-Bubble Interactions under the Acoustic Field, Honoh SUZUKI\* and I-Yin Sandy LEE

### 15h40-16h10 Special session: exhibitors and sponsors

### 16h10-16h30 COFFEE BREAK

### 16h30-18h30 Poster Session

### Complex shaped particles and aggregates (CP)

(CP-10) Formation of spherical aggregate from micro droplet containing submicron inclusions, Mariusz WOŹNIAK\*, Justice ARCHER, Gennadiy DERKACHOV, Daniel JAKUBCZYK, Tomasz WOJCIECHOWSKI, Krystyna KOLWAS, Maciej KOLWAS

(CP-11) Thermometry of evaporating acetone droplets in near-critical conditions by combined phosphorescence/fluorescence measurements, Benjamin BORK\*, Thomas KÖNIG, Florian WECKENMANN, Grazia LAMANNA and Andreas DREIZLER

(CP-12) Role played by multiple scattering on the absorption and scattering properties of soot fractal aggregates, Jérôme YON\*, Damien Hebert, Alexandre BESCOND, Claude ROZE and Alexis COPPALLE

(CP-13) Characterization and application of laser light scattering by ice crystals, A.-K. GANSMANN\*, P. STEGMANN and C. TROPEA

(CP-14) Light scattering from helical microparticles, Rodrigo BECERRA-CARRILLO\*, Jian YANG and Kevin ROBBIE

(CP-15) T-matrix methods for scattering by cylinders in optical tweezers, Xiaoqiong QI\*, Timo A. NIEMINEN, Alexander B. STILGOE, Vincent L.Y. LOKE, and Halina RUBINSZTEIN-DUNLOP

### Far-field scattering (FF)

(FF-9) T-matrix based scattering model for bio-medical sensor, V. SCHMIDT\*, Y. EREMIN and T. WRIEDT

(FF-10) Coupling T-Matrix formalism with UV-VIS polarization Laser LIDAR to retrieve atmospheric particles backscattering from desert dust, sea-salt and water soluble particles mixture, Alain MIFFRE\*, Gregory DAVID, Elodie COILLET, and Patrick RAIROUX

(FF-11) Analytical solutions of plane wave scattering from a large sized chiral cylinder, Qing-Chao SHANG, Zhen-Sen WU\*, Tan QU, Zheng-Jun LI, and Lei GONG

(FF-12) An analytic solution for the Gaussian beam scattering from a moving uniaxial anisotropic sphere, Mingjun WANG\*, Huayong ZHANG, Xizheng KE, Pengfei WU

(FF-13) Numerical computation of the scattering properties of large arbitrary shaped particle by MLFMA and VCRM, Yue-Qian WU, Ming-Lin YANG, Kuan Fang REN\* and Xin-Qing SHENG

(FF-14) ABSphere - Software for calculation of all physical properties of any shaped Beam by a spherical particle, Kuan Fang REN\*

### Mechanical effects of light (ME)

(ME-14) Theoretical aspects of single-beam multitrapping acoustical tweezers, Glauber T. SILVA\*

(ME-15) Kramers escape rate of silicon nanowires in a double optical trap, A. MAGAZZU\*, C. J. RICHARDS, T. J. SMART, A. IRRERA, M. G. DONATO, F. PRIOLO, P. G. GUCCIARDI, O. M. MARAGÓ and P. H. JONES\*

(ME-16) Non Conservative optical forces for silicon nanowires in optical traps, A. MAGAZZU\*, A. IRRERA, P. ARTONI, S. H. SIMPSON, S. HANNA, P. H. JONES, F. PRIOLO, P. G. GUCCIARDI, and O. M. MARAGÓ\*

(ME-17) Optical tweezers force calibration of chromosomes, Nima Khatibzadeh, Ann A. M. BUI\*, Alexander B. STILGOE, Timo A. NIEMINEN, Halina RUBINSZTEIN-DUNLOP and Michael W. BERNS



(ME-18) Radiation torque induced by Bessel beam, Renxian LI\*, Lixin GUO, Ruiping YANG, Chunying DING and Zhenzen WU

(ME-19) Analysis of radiation force of a Laguerre Gaussian vortex beam on a uniaxial anisotropic sphere, Tan QU\*, Zhen-Sen WU\*, Qing-Chao SHANG, Zheng-Jun LI, Lei GONG

(ME-20) Angular momentum transfer between Laguerre-Gauss beams and purpose-built microrotors, Vincent L.Y. LOKE\*, Theodor ASAVEI, Timo A. NIEMINEN and Halina RUBINSZTEIN-DUNLOP

(ME-21) "Optical gas bubble management" at its Laser thermo-capillary trapping in an absorbing liquid, A.D. BUTENKO, N.A. KAZACHKOVA, O.I. KOFMAN and V.I. LYMAR\*

(ME-22) A new polarimetric indicator in sensing applications based on magneto-dielectric nanoparticles, Ángela I. BARREDA, Juan M. SANZ, José M. SAIZ\*, Fernando MORENO and Francisco GONZÁLEZ

(ME-23) Scattering matrix measurements for single particles, Antti PENTTILÄ\*, Hanna PENTIKÄINEN, Daniel GUIRADO RODRÍGUEZ, Jouni PELTONIEMI, and Karri MUINONEN

#### Optical Particle Characterization (PC)

(PC-15) Measurement of laser rainbow of elliptical liquid jet, Ruliang ZHONG, Xiang'e HAN\* and He LIU

(PC-16) Digital in-line holography for near field observation of liquid-liquid flows, Fabrice LAMADIE\*, Laurent BRUEL and Lila OULDARBI

(PC-17) On the measurement of nano and micro particles by Fourier Interferometric imaging, Sawitree SAENGKAEW\*, Annie GARO, Siegfried MEUNIER-GUTTIN-CLUZEL and Gérard GREHAN

(PC-18) Numerical considerations on measurements of light-absorbing particles using polarized-type phase Doppler Method, Naomichi YOKOI\* and Yoshihisa AIZU

(PC-19) Ultrathermometry of Evaporating Droplets, Giennadij DERKACHOV, Daniel JAKUBCYK\*, Mariusz WOŹNIAK, Justice ARCHER and Maciej KOLWAS

(PC-20) Laser Speckle of Nanofluids and its Application in Velocity Distribution Measurement, Chuanlong XU\*, Zhihong DU, Shimin WANG

(PC-21) Ionisation of soot aggregates and primary particles in a laser field, Vivien BEYER, Douglas GREENHALGH, Yannis HARDALUPAS, Christopher HONG\*, Alex M K P TAYLOR

(PC-22) Fine particles sampling of light-scattering Laser photometer and air sampler with impaction sizer, C-H HUANG\* and Y-Y CHANG

(PC-23) Aerosol optical and microphysical properties retrieved from combination LIDAR with Sun/sky photometer: Preliminary results over Lille, Valentyn BOVCHALIU\*, Thierry PODVIN, Augustin MORTIER, Philippe GOLOUB, Oleg DUBOVIK, Didier TANRE, Igor VESELOVSKII, Stéphane VICTORI

(PC-24) In situ individual aerosol particle composition: combining IR spectroscopy and coherent heterodyne scattering, Jay EVERSOLE\*, Brian SAAR, David WOLINSKI, Ad-

am SHABSHLOWITZ, Matthew HART and William HERZOG

(PC-25) Conformable organic photo sensors for particle systems characterization, Matthias SENTIS, Fabrice R.A. ONOFRI\*, Fabien CHAUCHARD, Olivier DHEZ, Jean-Yves LAURENT

(PC-26) An improved Analysis of the Scattering Properties to the Half-Space Problem with Multiple Defect Particles for Optical Surface, Lei GONG\*, Zhen-Sen WU

(PC-27) Multiplex single particle and biological cell analysis in microfluidics, David DANNHAUSER\*, Domenico ROSSI, Filippo CAUSA and Paolo A. NETTI

(PC-28) Observation of red blood cells in blood coagulation using digital holographic microscopy, Hideki FUNAMIZU\*, Yuki WATANABE and Yoshihisa AIZU

(PC-29) Measurement of collected polarised light across a liquid-liquid extensional flow, Arab BELKADI, Dominique TARLET\*, Agnès MONTILLET, Jérôme BELLETTRE and Patrizio MASSOLI

(PC-30) Coupling environmental acoustic levitation cell and Micro-Raman spectroscopy for monitoring photoevolution and hygroscopicity of single particles with atmospheric interest, Myriam MOREAU\*, Yeny TOBON, Sophie SOBANSKA and Jacques BARBILLAT

(PC-31) Characterization of nanoparticles aggregates by static light scattering, Cedric MONTET, Matthias SENTIS and Fabrice ONOFRI\*

#### Miscellaneous Topics (MT)

(MT-1) Intrinsic Method for the Evaluation of Beam Shape Coefficients in Spheroidal Coordinates for Oblique Illumination, Lu HAN\*, Yi Ping HAN, Gerard GOUESBET, and Jia Jie WANG

(MT-2) Effect of Fractal Parameters of Soot Aggregates on their Absorption and Scattering Properties Simulated by Discrete Dipole Approximation, Gizem OKYAY\* and Franck ENGUEHARD

(MT-3) Dynamic polarimeter for spectral imaging of scattering media, J. M. SANZ, F. CARMAGNOLA, A. FERNANDEZ, F. MORENO, F. GONZALEZ and J. M. SAIZ\*

(MT-4) Diffusion of a laser pulse in a particle medium with three-dimensional geometry, Feng XU\* and Anthony B. DAVIS

(MT-5) Dynamics of laser excited colloidal Au nanoparticles conjugated with cysteine, Alexandra FALAMAS, Nicoleta TOSA\* and Valer TOSA

(MT-6) Optical properties of core-shell gold-iron oxide and iron oxide-gold nanoparticles for near UV and visible radiation wavelengths, Victor PUSTOVALOV, Liudmila ASTAFYeva\* and Galina LEDNEVA

(MT-7) Ideal absorption design in nanoparticles, Brian STOUT\*, Nicolas, BONOD, Jérôme WENGER, Victor GRIGORIEV

(MT-8) Polarized light extraction from light emitting diode using metallic nanostructures, Örs SEPSI\*, Tibor GÁL and Pál KOPPA

18h30 End.

20h00–23h00 Cocktail dinner



## Tuesday 26th

### 8h30-9h10 Keynote Lecture

(AK-2) From optical tweezers to optically self-arranged and propelled microstructures, Pavel ZEMANEK

### 9h10-10h30 Mechanical effects of light (ME I)

Chair: David G. GRIER, Bernard POULIGNY

(ME-1) Optical trapping and manipulation of nanostructures, O. M. MARAGÓ\*, M. G. DONATO, A. MAGAZZU, A. IRRERA, C. D'ANDREA, E. MESSINA, B. FAZIO, M. A. IATI, P. H. JONES, and P. G. GUCCIARDI

(ME-2) Photonic Nanojet in Optical Tweezers, Antonio A. R. NEVES\*

(ME-3) As Diverse pathes leden diverse folk the righte way to radiation pressure, Timo A. NIEMINEN\*

(ME-4) Optical Torques for Alignment of Au Nanorods, Jiunn-Woei LIAW, Wei-Jiun LO, and Mao-Kuen KUO\*

### 10h30-11h00 COFFEE BREAK

### 11h00-12h20 Far-field scattering (FF I)

Chair: Jay EVERSOLE, Yiping HAN

(FF-1) Discrete Dipole Approximation for Particles near Surface: a 3D-FFT-accelerated Implementation, Maxim A. YURKIN\* and Marcus HUNTEMANN

(FF-2) Analysis of chiral sphere rainbows in geometric optics model, Zhen-Sen WU\*, Qing-Chao SHANG, Tan QU, Zheng-Jun Li and Lei GONG

(FF-3) Generalized rainbow patterns for spheroidal droplet characterization, Haitao YU, Jianqi SHEN and Cameron TROPEA\*

(FF-4) Vectorial Complex Ray Model – from geometrical optics to ray theory of wave, Kuan Fang REN\*, Claude ROZÉ, Yijia YUAN

### 12h30-14h00 Lunch

### 14h00-15h40 Complex shaped particles & aggregates (CP I)

Chairs: Lixin GUO, Maxim YURKIN

(CP-1) On the electromagnetic scattering of arbitrary shaped beams by arbitrary shaped particles: a review, Gérard GOUESBET\*, James A. LOCK and Michael I. MISHCHENKO

(CP-2) Light scattering on single evaporating microdroplet of suspension: Fano resonances and surface pressure, Maciej KOLWAS\*, Genadij DERKACHOV, Daniel JAKUBCZYK, Krystyna KOLWAS and Justice ARCHER

(CP-3) Electromagnetic modeling of sunscreen protection, Marie LECUREUX\*, Carole DEUMIE and Stefan ENOCH

(CP-4) Helicity resonances in spheres, Xavier ZAMBRANA-PUYALTO\*, Gabriel MOLINA-TERRIZA

(CP-5) Scattering properties of mineral and soot-containing aerosols, Janna M. DLUGACH\*, Michael I. MISHCHENKO

### 15h40-16h10 COFFEE BREAK

### 16h10-17h50 Optical Particle Characterization (PC 1)

Chair: Gérard GREHAN, Cameron TROPEA

(PC-1) Fast nanoparticle sizing by image dynamic light scattering, Chengze XU, Xiaoshu CAI\*, Jie ZHANG, Lili LIU

(PC-2) High-sensitivity low-coherence dynamic light scattering and particle sizing for nanoparticles (III) : Particle size distribution of pigment particles, Katsuhiro ISHII\*, Sohichiro NAKAMURA and Yuki SATO

(PC-3) Light scattering in highly concentrated mono- and bimodal dispersions, Lena BRESSEL\*, Miren AGUIRRE, Mariano BARRADO, Jose RAMON LEIZA and Olivier REICH

(PC-4) Diffusing wave spectroscopy: a modern light scattering technique to characterize mixtures/soft matter systems, Frédéric MONDIOT, Mathias REUFER, and Andreas C. VOELKER\*

(PC-5) Digital In-line Holography for the characterization of inclusions in a suspended water droplet, Wisutthida WICHITWONG, Sébastien COETMELLEC, Denis LEBRUN, Daniel ALLANO, Gérard GREHAN, and Marc BRUNEL\*

17h50 End.

### 19h00-20h30 Guided tour

## Wednesday, 27th

### 8h40-9h20 Keynote Lecture

(AK-3) Numerical techniques for shaped beam scattering by large and absorbing particle using variable separation methods, Kuan-Fang REN\*

### 9h20-10h40 Far-field scattering (FF II)

Chairs: Gerard GOUESBET, Honoh SUZUKI

(FF-5) Scattering of a plane electromagnetic wave by a radially inhomogeneous generalized Luneburg lens, James A. LOCK\*, Philip LAVEN and John A. ADAM

(FF-6) Light Scattering of a non diffracting zero-order Bessel beam by uniaxial anisotropic bispheres, Zheng-Ju LI\*, Zhen-Sen WU, Tan. QU, Hai-Ying LI, Lu BAI and Lei GONG

(FF-7) Electromagnetic scattering by a general anisotropic dielectric nonspherical particle, Jia Jie WANG\*, Yi PING HAN, Zhe Feng WU and Lu HAN

(FF-8) Observation of laser light scattering by randomly oriented particles at exact backscattering angle, Alain MIFFRE \*, Gregory DAVID, Elodie COILLET, and Patrick RAIROUX

### 10h40-11h10 COFFEE BREAK

### 11h10-12h30 Plasmonics (PL I)

Chairs: Philippe COURTEILLE, Timo A. NIEMINEN

(PL-1) Au-fluorophore nanohybrids: experimental evidence of the plasmonic Dicke effect, Pierre FAUCHÉ\*, Miguel COMESAÑA-HERMO, Brahim LOUNIS, Serge RAVAINE and Renaud VALLÉE

(PL-2) Enhanced Spin-Hall and Goos-Hänchen shift(s) mediated by scattering in plasmonic nanoparticles, Jalpa



## Thursday, 28th

### 8h40-9h20 Keynote Lecture

(AK-4) Electromagnetic scattering by dense discrete random media: physics and numerically exact results, Michael I. MISHCHENKO

### 9h20-10h40 Complex shaped particles & aggregates (CP II)

Chairs: Janna DLUGACH, Thomas WRIEDT

(CP-6) Method of moment solution for the electric current volume integral equation, Johannes MARKKANEN\*, Antti PENTTILÄ, Jouni PELTONIEMI and Karri MUINONEN

(CP-7) T-matrix calculation with the Green's dyadic technique for electromagnetic scattering: a numerical approach using Dyson equation, Ugo TRICOLI\*, Klaus PFEILSTICKER

(CP-8) Light scattering by random irregular particles with different morphology, Yevgen GRYNKO\*, Evgenij ZUBKO

(CP-9) High-frequency Gaussian beam scattering by ice crystals, Patrick STEGMANN\*, Erión GJONAJ and Cameron TROPEA

### 10h40-11h10 COFFEE BREAK

### 11h10-12h30 Mechanical effects of light (ME III)

Chairs: Onofrio M. MARAGÒ, Antonio A. R. NEVES

(ME-10) Scattering of focused Laser beam in Zebrafish brain, Itia FAVRE-BULLE\*, Daryl PREECE, Timo A. NIEMINEN, Ethan K. SCOTT and Halina RUBINSZTEIN-DUNLOP

(ME-11) Polarization dependent optical trapping of chiral microresonators, M. G. DONATO\*, J. HERNANDEZ, A. MAZZULLA, C. PROVENZANO, R. SAIJA, M.A. IATI, A. MAGAZZÙ, P. PAGLIUSI, R. BARTOLINO, P. G. GUCCIARDI, O. M. MARAGÒ AND G. CIPPARRONE\*

(ME-12) The escape of spheres from optical tweezers, Alexander B. STILGOE, Nima KHATIBZADEH, Ann A. M. BUI\*, Timo A. NIEMINEN, Michael W. BERNS and Halina RUBINSZTEIN-DUNLOP

(ME-13) Brownian motion in speckle light fields: from anomalous diffusion to optical manipulation, Giorgio VOLPE\*, Giovanni VOLPE and Sylvain GIGAN

### 12h30-14h00 Lunch

### 14h10 Buses departure

### 15h10-19h30 Excursion

### 19h30-23h00 Gala Dinner

### 23h15 Buses departure

24h00 Buses arrival to Marseille

SONI\*, Shampy MANSHA, S. Dutta GUPTA, Ayan BANERJEE and Nirmalaya GHOSH

(PL-3) Tailoring the spectral efficiency of gold nanospheres using size dependence of plasmon resonance frequencies and damping rates, Krystyna KOLWAS\* and Anastasiya DERKACHOVA

(PL-4) Analysis of the scattering behaviour of two spherical plasmonic particles, Wen FENG\*, Jens HELLMERS, Vladimir SCHMIDT, Lutz MÄDLER and Thomas WRIEDT

### 12h30-14h00 Lunch

### 14h00-15h40 Mechanical effects of light (ME II)

Chair: Martin Šiler, Giorgio VOLPE

(ME-5) Practical Tractor Beams, David G. GRIER\* and David B. RUFFNER

(ME-6) Optical trapping in secondary maxima of a tightly focused laser beam, Martin ŠILER\*, Petr JÁKL, Jan JEŽEK, Lukáš CHVÁTAL and Pavel ZEMÁNEK

(ME-7) Magnetic nanoparticles ring formation and dynamics, JanMASAJAD\*and Marcin BACIA

(ME-8) Why do ellipsoidal particles oscillate in focused Gaussian beams? Jean-Christophe LOUDET\*, Bernard POULIGNY and Besira MIHIRETIE

(ME-9) Optical binding and hydrodynamic synchronization between non-spherical colloidal particles, Stephen H. SIMPSON, Stuart BOX, Luke DEBONO, Philip H. JONES, Onofrio M. MARAGÒ and Simon HANNA \*

### 15h40-16h10 COFFEE BREAK

### 16h10-17h50 Optical Particle Characterization (PC II)

Chairs: Xiaoshu CAI, Norbert ROTH

(PC-6) Energy redistribution in single particle interference microscopy, Markus SELMKER\*, Irene NEUGEBAUER and Frank CICHOS

(PC-7) Identification and characterization of cell-Derived microparticles using light scattering, Anastasiya I. KONOKHOVA\*, Darya N. CHERNOVA, Dmitry I. STROKOTOV, Maxim A. YURKIN, and Valeri P. MALTSEV

(PC-8) Interferometric out-of-focus imaging simulator for irregular multi-emitters. Application to the characterization of irregular rough particles, Marc BRUNEL\*, Sébastien COETMELLEC, Gérard GREHAN and Huanhuan SHEN

(PC-9) Simultaneous mapping of droplets size and concentration in sprays using structured laser illumination planar imaging, Yogeshwar Nath MISHRA\*, Elias KRISTENSSON and Edouard BERROCAL

(PC-10) Determination of droplet velocity and size immediately before impacting into a liquid pool, Norbert ROTH\* and Bernhard WEIGAND

17h50 End.



## Friday, 29th

### 8h30-9h10 Keynote Lecture

(AK-5) Laser scattering in particle characterization: application perspective, Renliang XU

### 9h10-10h30 Optical Particle Characterization (PC III)

Chairs: Yoshihisa AIZU, Jose M. SAIZ

(PC-11) Particle characterization with digital holography, Matthew BERG\*, Nava SUBEDI and Nicholas FOWLER

(PC-12) Measurement of bubbles inside a droplet by digital in-line holography, DARAWAN PEJCHANG\*, Sébastien COETMELLEC, Gérard GREHAN, Daniel ALANO, Denis LEBRUN and Marc BRUNEL

(PC-13) Measurement of spray characteristics by FII: Experimental validation<sup>2</sup> on calibrated multijet, Sawitree SAENGKAEW\*, Siegfried MEUNIER-GUTTIN-CLUZEL and Gerard GREHAN

(PC-14) Transient evolution of refractive index gradients inside single isolated droplets with rainbow refractometry, Christopher ROSEBROCK, Thomas WRIEDT and Lutz MÄDLER

### 10h30-11h00 COFFEE BREAK

### 11h00-12h00 Plasmonics (PL II)

Chairs: Simon HANNA, Maciej KOLWAS

(PL-5) Multiple light scattering from ordered and disordered atomic clouds, Philippe COURTEILLE\* and Romain BACHELARD

(PL-6) Surface plasmon polaritons in linear chains of silver nanospheroids, Ilia L. RASSKAZOV\*, Sergei V. KARPOV and Vadim V. MARKEL

(PL-7) Multiple particle scattering approach applied to coupling effects in plasmonic aggregates: from hybrid dimer modes to quadrumer Fano resonances, Saïd BAKHTI, Nathalie DESTOUCHES and Alexandre TISHCHENKO\*

### 12h00-12h30 Conclusive keynote

### 12h30-14h00 Lunch

### 14h00 End of LIP2014

\*Corresponding author



# PROGRAM