



Annual meeting of GDR NiNo – Inorganic Nanostructures by Solution Chemistry

## “Anisotropic colloidal nanosystems: nanoplatelets, nanowires and ultrafine systems”

ENS de Lyon, June 17-19, 2024

Organisers: Benjamin Abécassis, Peter Reiss

### Venue:

ENS de Lyon Site Descartes,  
Institut Français de L'éducation  
19 All. de Fontenay, 69007 Lyon



### 17/06 - Day 1

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| 14:00 - 14:10 | <i>Opening of the meeting</i>   |
| 14:10 - 14:50 | <i>Invited speaker</i> - Lauth Jannika (Universität Tübingen)<br><i>A Chemical Roller Coaster to Innovative Photonics: From aligning CdSe nanoplatelets in polymer fibers to PbS nanoplatelets with sub-meV photoluminescence and flat PbSe and PbTe quantum dots</i> |
| 14:50 - 15:15 | <i>Contributed talk</i> - Soulantika Katerina (LPCNO, Toulouse)<br><i>Synthesis of ultrathin 2D Pt and PtPd nanostructures</i>  |
| 15:15 - 15:30 | <i>Flash talk</i> - Siaugue Jean-Michel (PHENIX, Paris)<br><i>Synthesis, Characterization and Cellular Internalization of Anisotropic Magnetic Nanoparticles</i>  |
| 15:30 - 16:00 | <i>Coffee break</i>   |
| 16:00 - 16:25 | <i>Contributed talk</i> - Zou Qilin (PMS, Palaiseau)<br><i>Optimization of anisotropic LaPO<sub>4</sub>:Eu<sup>3+</sup> nanorods as polarized luminescence probes in fluid flow</i>   |



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| 16 :25 - 16 :40 | <i>Flash talk</i> - Shahmanesh Ashkan (Monaris, Paris)<br><i>Synthesis and magnetic properties of uniform populations of cubic maghemite nanoparticles with tunable size and surface chemistry</i>                            |
| 16 :40 - 17 :05 | <i>Contributed talk</i> - Maksem Mélik (LPCNO-NCO, Toulouse)<br><i>Intégration de nanoparticules magnétiques douces sur inductances planaires pour applications RF</i>  |
| 17 :05 - 17 :30 | <i>Contributed talk</i> - OH Jisoo (PMC, Ecole Polytechnique, Palaiseau)<br><i>Continuous Anisotropic Growth and Assembly of Cs<sub>x</sub>WO<sub>3-y</sub> Nanocrystals Exhibiting Linearly Polarized Near-infrared LSPR</i> |
| 17 :30 - 17 :55 | <i>Contributed talk</i> - Sidhoum Charles (Collège de France, Paris)<br><i>Shedding Light on the Birth of Hybrid Perovskites: A Correlative Study by In-situ Electron Microscopy and Synchrotron-Based X-ray Scattering</i>   |

### 18/06 - Day 2

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| 09 :30 - 10:10  | <i>Invited speaker</i> - deMello Donega Celso (Utrecht University)<br><i>Ultrathin CdTe Magic-Size Nanowire and Nanosheets: Where Does the Magic Come from?</i>                           |
| 10 :10 - 10:35  | <i>Contributed talk</i> - FU Ningyuan (LPEM, Paris)<br><i>Synthesis of thick HgCdSe nanoplatelets by cation exchange catalyzed by silver ions, showing amplified spontaneous emission</i> |
| 10 :35 - 10:50  | <i>Flash talk</i> - RIVAUX Céline (CEA/ IRIG/SyMMES/STEP, Grenoble)<br><i>Continuous flow synthesis of Quantum dots and use of Machine Learning to improve the results</i>                |
| 10 :50 - 11:20  | <i>Coffee break</i>   |
| 11 :20 - 11 :45 | <i>Contributed talk</i> – Guillemeney Lilian (ENS de Lyon)<br><i>Ligand Tail Controls Shape Shifting of Indium Sulfide Ultrathin Nanoribbons</i>  |
| 11 :45 - 12 :00 | <i>Flash talk</i> - Bonetti Marcello (PMC École Polytechnique, Palaiseau)<br><i>Dynamics and Alignment of LaPO<sub>4</sub>:Eu Nanorods Under Flow or Electrical Field</i>                 |



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| 12 :00 - 12 :25 | <i>Contributed talk</i> - DUTTA Sarit (Laboratoire de Chimie, ENS de Lyon)<br><i>Role of ligand-induced surface stresses in controlling shapes of ultrathin colloidal nanoplatelets</i>                 |
| 12 :30 - 14:00  | <i>Lunch break</i>  |
| 14 :00 - 14 :40 | <i>Invited speaker</i> - Ithurria Sandrine<br><i>Design of II-VI semiconductor nanoplatelets: from the inorganic core to the organic shell of ligands</i>   |
| 14 :40 - 15 :05 | <i>Contributed talk</i> - Landaburu Guillaume (ENS de Lyon)<br><i>Chiroptical properties of semiconducting nanoplatelets functionalized by tartrate derivatives</i>                                     |
| 15 :05 - 15 :30 | <i>Contributed talk</i> - Mariani Pablo (Laboratoire de Chimie de l'Ecole Normale Supérieure de Lyon (UMR 5182), Lyon)<br><i>Colloidal Assemblies of Anisotropic and Chiral Plasmonic Nanoparticles</i> |
| 15 :30 - 16:00  | <i>Coffee break</i>   |
| 16 :00 - 16 :25 | <i>Contributed talk</i> - AUSSONNE Alexis (Laboratoire de Chimie de Coordination, Toulouse)<br><i>Organometallic synthesis of colloiddally stable small MoS<sub>2</sub> nanoparticles</i>               |
| 16 :25 - 16 :40 | <i>Flash talk</i> - Stepanova Anna (CEA/ IRIG/SyMMES/STEP, Grenoble)<br><i>Heat-up approach for the synthesis InP/ZnS alloy quantum dots</i>  |
| 16 :40 - 17 :05 | <i>Contributed talk</i> - Marccone Jules (Laboratoire de Physique des Solides, Orsay)<br><i>Depletion driven self-assembly of silver-gold pentagonal nanoprisms</i>                                     |
| 17 :05 - 17 :30 | <i>Contributed talk</i> - Wagnon Benoît (Laboratoire de Chimie de l'ENS de Lyon)<br><i>Role of water in the self-assembly of colloidal CdSe nanoplatelets</i>   |
| 19:30           | <i>Gala Dinner</i><br><i>Restaurant VATEL (8 Rue Duhamel)</i>   |



19/06 - Day 3

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| 09 :30 - 10:10  | <i>Invited speaker</i> - Ifante Ivan<br><i>Surface Reconstructions in Quantum Dots</i>   |
| 10 :10 - 10:35  | <i>Contributed talk</i> - Valleix Rodolphe (ENS Lyon)<br><i>Surface passivation of III-V and II-VI nanocrystals using metal fluorides</i>  |
| 10 :35 - 10:50  | <i>Contributed talk</i> - Defoy Emile (LCMCP, Paris)<br><i>Topochemical syntheses in molten salts</i>  |
| 10 :50 - 11:20  | <i>Coffee break</i>  |
| 11 :20 - 11 :45 | <i>Contributed talk</i> - Jakoobi Martin (LCC Toulouse)<br><i>Tackling the catalytic reactivity of bulk materials by going nano-scale: synthesis of colloidally stable MoOx nanoparticles and their reactivity</i> |
| 12 :00 - 12 :25 | <i>Contributed talk</i> - Lledos Sébastien (LPCNO, Toulouse)<br><i>Anisotropic self-assembly of ultra-small platinum nanoparticles with peptidic polymers.</i>   |
| 12:20           | <i>Closing remarks, presentation prizes</i>  |