# Réunion Plénière du GDR U.P 2022

## Lundi 12 décembre 2022

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| *09h00-10h00* | *ACCUEIL* | |
| *10h00-10h30* | BUREAU DU GDR UP | Introduction<br>Actions 2022 du GDR, Actions prévues, opportunités |
| *10h30-11h00* | Catalin MIRON (LIDYL) | Présentation PEPR LUMA |
| *11h00-11h30* | *PAUSE CAFÉ / EXPOSANTS* | |
| *SESSION 1 Condensed phase 1 / Sarah Houver (MPQ)* | | |
| *11h30-11h50* | Adeline BONVALET (LOB) | Spectroscopie infrarouge pompe-sonde de la picoseconde à la microseconde dans une photoenzyme |
| *11h50-12h10* | Amira GHARBI (IPCMS) | Ultra-fast Energy transfer dynamics in dye-doped organic nanoparticles |
| *12h10-12h30* | Oleksandr DEREVIANCHENKO (EKSPLA/OPTON) | Developments in high intensity lasers |
| *12h30-14h00* | *REPAS / EXPOSANTS* | |
| *SESSION 2 Ultrafast optics / Saikat Nandi (ILM)* | | |
| *14h00-14h20* | Aurélie JULIEN (INPHYNI) | Phase modulator based on thermo-optically addressed liquid crystal for multi-octave light source |
| *14h20-14h40* | Edouard HERTZ (ICB) | Storing an ultrashort optical vortex in molecules |
| *14h40-15h00* | Brice ARNAUD (IMMM) | A first-principles approach to non-linear phononics in Bi2Te3 |
| *15h00-15h20* | Martin LUTTMAN (LIDYL) | Conservation of a half-integer angular momentum of light in nonlinear optics |
| *15h20-15h50* | *PAUSE CAFÉ / EXPOSANTS* | |

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| *SESSION 3 Attosecond and XUV science 1* | | |
| *15h50-16h10* | Fabien GATTI (ISMO) | Simulations of attosecond pump-probe experiments on $CO_2$ |
| *16h10-16h30* | Hugo MARROUX (LIDYL) | Attosecond spectroscopy of molecular core levels |
| *16h30-16h50* | Victor DESPRE (ILM) | Ab-initio simulations of ultrafast electron-nuclear dynamics: Paving the way to attochemistry |
| *16h50-17h10* | Michele NATILE (Amplitudes) | High repetition rate few-cycle Mid-IR laser source |
| | *Photo conférence* | |
| *17h30-19h00* | *Session Poster / Cocktail* | |
| *19h00-20h30* | *Cocktail* | |
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# Mardi 13 décembre 2022

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| *SESSION 4 INTENSE LASER INTERACTION / Jérôme Faure (LOA)* | | |
| *9h00-9h20* | Weipeng YAO (LULI) | Optimizing laser coupling, matter heating, and particle acceleration from solids, using multiplexed ultraintense lasers |
| *9h20-9h40* | Amélie FERRE (LP3) | Kα X-ray source driven by a multi-terrawatt femtosecond laser at 100 Hz for spectroscopy and imaging application |
| *9h40-10h00* | Marie LABAT (SOLEIL) | Recent news about Laser-Plasma Accelerator based Free Electron Lasers |
| *10h00-10h20* | François SYLLA (Sourcelab) | KAIO-Beamline, the modular high-repetition rate laser-plasma electron accelerator for broad range of applications |
| *10H20-10h50* | *PAUSE CAFÉ / EXPOSANTS* | |
| *SESSION 5 CONDENSED PHASE 2 / Christine Richter (LPMS & LIDYL)* | | |
| *10h50-11h10* | Rodolphe VUILLEUMIER (ENS, Dept Chimie) | Dynamiques aux interfaces de graphene et hBN chargées |
| *11h10-11h30* | Emmanuelle JAL (LCPMR) | Unravelling the Transient Depth Magnetic Profile During Ultrafast Demagnetization of an Iron Thin Film |
| *11h30-11h50* | Yann GALLAIS (MPQ) | Disentangling lattice and electronic instabilities in the excitonic insulator candidate $Ta_2NiSe_5$ by non-equilibrium spectroscopy |
| *11h50-12h10* | Anna LEVY (INSP) | Ultrafast lattice dynamics of laser-heated copper using time-resolved photoelectron spectroscopy |
| *12h10-14h00* | *REPAS / EXPOSANTS* | |

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| *SESSION 6 ATTOSECOND AND GAS PHASE ULTRAFAST SCIENCE / Lou Barreau (ISMO)* | | |
| *14h00-14h20* | Vincent LORIOT (ILM) | Attosecond signatures of spatially extended hole in a molecule |
| *14h20-14h40* | Jonathan DUBOIS (MPI) | Recollisions in circularly polarized pulses : from tunnel-ionization to the return of the electron |
| *14h40-15h00* | Isabelle MERRITT (CEISAM) | Photoisomerization of Cis-Azobenzene: Understanding the Quantum Yield Wavelength Dependency |
| *15h00-15h20* | Eric CONSTANT (ILM) | Chromatic aberrations control in high order harmonic XUV beams by spatial shaping of the fundamental |

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| *15h20-15h50* | *Pause café / EXPOSANTS* | |
| *SESSION 7 NANO SCIENCE / Pascal Ruello (IMMM)* | | |
| *15h50-16h10* | Angela VELLA (GMP) | $LaB_6$ nano-tip as an ultrafast electron source |
| *16h10-16h30* | Giovanni MANFREDI (IPCMS) | Driving orbital magnetism in metallic nanoparticles through plasmonic effects |
| *16h30-16h50* | Marc ALIAS-RODRIGEZ (ICR) | Revealing the ultrafast spin-crossover mechanism in $Fe^{II}(bpy)_3$ through quantum dynamics |
| *16h50-17h10* | Bureau du GDR UP | CONCLUSION |

# 1er Workshop « Dialogue théorie-expérience en sciences ultrarapides »

## Mercredi 14 décembre 2022

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| *09h00-09h05* | *Bureau du GDR U.P* | *Introduction* |
| *SESSION 1 Molécules isolées / Vincent Loriot (ILM)* | | |
| *09h05-09h30* | Richard Taïeb (LCPMR) | TBA |
| *09h30-09h55* | Bernard Pons (CELIA) | Structures et dynamiques de molécules chirales sondées par de brèves impulsions laser |
| *09h55-10h20* | Martial Boggio-Pasqua (LCPQ) | Dihydropyrene photoisomerization: Aspirations to go beyond the static mechanistic picture |
| *10h20-10h50* | *Pause Café / discussions* | |
| *SESSION 2 molécules environnées, complexes moléculaires et nanoparticules / Jérémie Léonard (IPCMS)* | | |
| *10h50-11h15* | Etienne Mangaud (MSME) | Simulation by the hierachical equations of motion with tensor trains |
| *11h15-11h40* | Valérie Vallet (PhLAM) | hotodynamics of lanthanide and actinide complexes |
| *11h40-12h05* | Aurélien Crut (ILM) | Investigation of the vibrational and cooling dynamics of metal nanoparticles by combined experimental and modeling approaches |
| *12h05 – 13h30* | *REPAS* | |

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| *SESSION 3 matériaux / Emmanuelle Jal (LCPMR)* | | |
| *13h30-13h55* | Philippe Scheid (ILJ) | Discussion on the origin of the helicity-dependent magnetization dynamics |
| *13h55-14h20* | Guillaume Duchateau (CESTA) | Laser energy deposition into dielectric materials |
| *14h20-14h45* | Anne Tanguy (LaMCoS) | Nanostructuration de la silice par laser femto-seconde |
| *14h45-15h15* | *Pause Café / discussions* | |
| *SESSION 4 Systèmes d'intérêt biologique / Pascale Changenet (LOB)* | | |
| *15h15-15h40* | Aurélien de la Lande (ICP) | First principles simulations of biological matter radiolysis, state-of-the-art and roadmap |
| *15h40-16h05* | Valérie Brenner (LIDYL) | Non-radiative transitions in bio-relevant systems: non-adiabatic dynamics simulations as a bridge between theory and experiment? |
| *16h05-16h30* | *Conclusions et perspectives* | |