

## PROGRAM

### *March 10<sup>th</sup> : auditorium – scientific presentations*

9:00 – 9:35 **Introduction** - Xavier Marie, NanoX director – Romuald Poteau and Virginie Serin, NanoX graduate school directors

9:35 – 10:25 Manoel Manghi, LPT - *Electrostatic interactions in water: the examples of DNA and ionic transport through nanopores*

*Pause café - Place du village*

10:55 – 11:05 FeRMI communication – Xavier Bouju, director

11:05 – 11:25 Umamahesh THUPAKULA, CEMES - *Role of DBBA surface coverage on the GNR lengths on Au(111) surface*

11:25 – 11:45 Sébastien Zamith, LCAR - *Production and study of molecular clusters*

11:45 – 12:05 Elise Lognon, LCPQ - *Computational study of the photoisomerization pathway of the dihydropyrene/cyclophanediene photochromic couple*

12:05 – 12:25 Simon Tardieu, LNCMI - *High strength silver nanowire-copper composite wires by spark plasma sintering and wire-drawing for high field magnets*

12:25 – 12:45 Anne Bernard-Mantel, LPCNO - *Magnetic skyrmions, from theory to applications*

*Déjeuner - Place du village*

14:00 – 14:50 Pierre-François Loos, LCPQ - *Higher roots of the Schrödinger equation*

14:50 – 15:10 Wolfgang Bacsá, CEMES – *Near surface optical interferometry*

15:10 – 15:30 Ion Nechita, LPT - *Measurement incompatibility vs. Bell non-locality*

15:30 – 15:50 Aliezer Martinez Mesa, LCAR - *Density-functional modeling of structural and thermophysical properties of quantum fluids*

*Pause café - Place du village*

16:10 – 16:30 Aude Simon, LCPQ - *Structural diversity of carbon clusters of astrophysical interest: vibrational and optical spectra*

16:30 – 16:50 Ashley Béguin, LCAR - *Atom interferometry with ultra-cold atoms*

16:50 – 17:40 Charles Simon, LNCMI - *Vortex pinning in superconducting cuprates : from fundamental science to the construction of a 40T superconducting user magnet*

18:00 - 19:30

*Posters & Apéritif – Auditorium & Place du village*

## PROGRAM

### March 10<sup>th</sup> : Lab room – SAB auditions broadcast

9:00 – 9:35

9:35 – 10:25

*Pause café - Place du village*

10:55 – 11:15

**MAGGIE** – Zoran RISTIVOJEVIC, LPT – Arjan BERGER, LCPQ (collaborative)  
The magnetic ordering of low-dimensional Wigner crystals

11:15 – 11:35

**LifeTEM** – Sophie MEURET, CEMES – Andrea BALOCCHI, LPCNO (collaborative)  
Time Resolved Catholuminescence In An Ultrafast Tem Applied To Ingan/Gan Quantum Wells

11:40 – 11:55

**DISTRACK** – Frédéric MOMPIOU, CEMES (disruptive)  
Dislocation Tracking In Tem By Computer Vision And Deep Learning

11:55 – 12:10

**TWEEPR** – Geert RIKKEN, LNCMI (disruptive)  
Traveling Wave Enantioselective Electron Paramagnetic Resonance

12:15 – 12:20

**IDTNAM** – Aleksandra PETKOVIC, LPT (disruptive)  
Impurity Dynamics In Quantum Liquids

*Déjeuner - Place du village*

14:00 – 14:50

14:55 – 15:10

**MATRICES** – Dongzhe LI, CEMES (disruptive)  
Multiscale ab initio skyrmionics in 2D magnets

15:10 – 15:25

**NV-Diam** – Iann GERBER, LPCNO (disruptive)  
Prospective investigation of NV-center optical properties in diamane by means of large-scale GW+BSE calculations

15:30 – 15:45

**OCCAMS** – Bruno PEAUDECERF, LCAR (disruptive)  
Optimal Control Of Cold Atoms For Measurement And Sensing

*Pause café - Place du village*

16:10 – 16:25

**ORIENTER** – Giuseppe BONIELLO, LPCNO (disruptive)  
ORiented and directed assEmbly of Nanoparticles acTively assistEd by liquid cRystals

16:25 – 16:40

**FLOAT** – Martin HYTCH, CEMES (disruptive)  
New Method To Measure Polarisation And Dielectric Constants At The Nanoscale By Operando Electron Holography

16:50 – 17:10

17:10 – 18:00

18:00 – 19:30

*Posters & Apéritif - Place du village*

## PROGRAM

### *March 17<sup>th</sup> : auditorium – scientific presentations*

9:30 – 10:20

Arnaud Arbouet, CEMES - *Ultrafast coherent Transmission Electron Microscopy : principle and applications*

*Pause café - Place du village*

10:50 – 11:10

Navarro Ruiz Javier, LPCNO – *Computational design of supported metal nanoparticles and single atom catalysts on carbon materials*

11:10 – 11:30

Thomas Bassanetti, LPT - *Cooperation through digital footprints in human groups*

11:30 – 11:50

Oliver Portugall, LNCMI - *The Megagauss project: new developments for research above 100 Tesla*

11:50 – 12:10

Julien Lam, CEMES - *Observing the birth of crystals through numerical simulations*

*Déjeuner - Place du village*

13:30 – 14:20

Laurence Ressler, LPCNO - *Electrostatic directed assembly of colloidal nanoparticles by nanoxerography : From single nano-objects to 3D millimetric patterns*

14:20 – 14:40

Hélène Bolvin, LCPQ - *Tuning the anisotropy of the magnetic properties in U(V) complexes*

14:40 – 15:00

J Agil, LNCMI - *Vacuum Magnetic Birefringence : an optical test of quantum electrodynamics*

15:00 – 15:20

Llinersy Uranga Pina, LCAR - *Interacting trajectory representation of ultrafast quantum dynamics*

15:20 – 15:40

Sija Ran, CEMES - *Ge-rich GeSbTe alloys for phase change memories and neuromorphic computing*

*Pause café - Place du village*

16:00 – 16:50

Étienne Brion, LCAR - *Rydberg atoms for quantum technologies*

16:50 – 17:10

**Closing** - Xavier Marie