

nano X FERMI Days 2023

PROGRAM

April 5th: amphi VINCI – scientific presentations

13:30 – 13:50	Introduction - Xavier Marie, NanoX director – Xavier Bouju, FeRMI director
13:50 – 14:30	Salman Maen, LCPQ - <i>Relativity and QED in atomic and molecular problems</i>
14:30 – 14:50	Pierre RENUCCI, LPCNO - <i>Control of electrical spin injection in semiconductor nanostructures</i>
14:50 – 15:10	Clément SIRE, LPT - <i>When poor little fish meet AI, VR, robots and drones!</i>
15:10 – 15:30	Quentin GROMOFF, CEMES - <i>A study of crystallization in gold/silver nanoalloys, from experiments to machine-learning assisted simulations</i>

Coffee break

16:00 – 16:20	Tangui RODZINKA, LCAR - <i>Large scale atom interferometer</i>
16:20 – 16:40	Héloïse LÉBOUCHER, LCPQ - <i>Modeling the interaction of PAH clusters and water aggregates: structures and energetics</i>
16:40 – 17:00	Renaud MATHEVET, transversal - <i>Optics and quantum technology practical works in Toulouse</i>
17:00 – 17:40	Rémi BATTESTI, LNCMI - <i>Magnetic birefringence of the vacuum</i>

Aperitif cocktail & poster evening

17:40 – 19:30

Pierre & Marie Curie Hall



INSA Toulouse
Amphi VINCI – P&M Curie Hall

April 6th: amphi VINCI – scientific presentations

9:00 – 9:40 Bruno PEAUDECERF, LCAR - *Quantum state control of a Bose-Einstein condensate*

9:40 – 10:00 Sébastien WEBER, transversal - *PyMoDAQ: Modular Data Acquisition with Python: pour une instrumentation simple, open-source, collaborative et adaptable!*

10:00 – 10:20 Quentin DESDION, LCPQ - *From microsolvation to solvation : a study of the interaction between a pesticide and water*

Coffee break

10:50 – 11:30 Luka TRIFUNOVIC, LPT - *Interplay between Anderson localization and topology*

11:30 - 11:50 Iker DEL ROSAL, LPCNO - *Role of H₂ in the catalytic properties of Metal NPs : a theoretical study*

11:50 – 12:10 Anna SWAN, NanoX invited researcher at CEMES - *Strain engineering of 2D materials*

Lunch break

Pierre & Marie Curie Hall

13:30 – 14:20 Marc LEGROS, CEMES - *Grain-boundary-based plasticity in small-grained metals*

14:20 – 14:40 Paulina PLOCHOKA, LNCMI - *Organic inorganic perovskites: - exciting Playground for exciton and polaron studies*

14:40 – 15:00 Jeanne COLBOIS, LPT - *Extreme Statistics in Random Spin Chains*

15:00 – 15:20 Arya NAIR, LCAR - *Collision Induced Dissociation of mixed water pyrene clusters*

15:20 – 15:40 William KNAFO, LNCMI - *Superconductivity induced by a magnetic field in UTe₂*

Coffee break

16:00 – 16:40 Lise-Marie LACROIX, LPCNO - *Elaboration of nanostructured materials : from chemistry to functional devices*

16:40 – 17:00 **Closing**

April 5th: collaborative projects

13:30 – 13:50

13:50 – 14:30

14:30 – 14:47

ExStrain-2D: EXcitonic and Polarization control in 2D transition metal dichalcogenide from STRAIN engineering
Jean-Marie POUMIROL, CEMES – Laurent LOMBEZ, LPCNO

14:47 – 15:04

GUN: Gearing Up Nanomachines
Gwénaél RAPENNE, CEMES – Jérôme CUNY, LCPQ

15:04 – 15:21

Q2D-SENS: Quantum sensors based on spin defects in hexagonal boron nitride
Cédric ROBERT, LPCNO – Alain CLAVERIE, CEMES – Grégory SEINE, CEMES

15:21 – 15:38

Q-META: QUANTUM-EMITTERS-EMBEDDED DIELECTRIC AND PLASMONIC LIGHT-EMITTING METASURFACE
Aurélien CUCHE, CEMES – Laurence REISSIER, LPCNO

Coffee break

16:00 – 16:17

SWIMS: Stellar Winds Interactions with Molecular Systems: from experiment to theory
Jean-Philippe CHAMPEAUX, LCAR – Mathias RAPACIOLI, LCPQ

16:17 – 16:34

TOPOSOT: TOPOlogical insulators as Spin-Orbit Torque source materials for the manipulation of perpendicular magnetized thin films
Thomas BLON, LPCNO – Jean-François BOBO, CEMES – Sébastien PLISSARD, LAAS

16:34 – 16:51

SAMOSA: STEM Analytical Methods for the Observation of beam-Sensitive Advanced nanoobjects
Pier-Francesco FAZZINNI, CEMES – Katerina SOULANTIKA, LPCNO

17:00 – 17:40

April 6th: emerging or disruptive projects

9:00 – 9:40

9:40 – 9:55

CANAL: Composite Active Nano-Antennas with Liquid crystals
Gonzague AGEZ, CEMES

9:55 – 10:10

COFEEI: COherent control of Free Electrons for Enhanced ultrafast nano-Imaging
Hugo LOURENCO-MARTINS

10:10 – 10:25

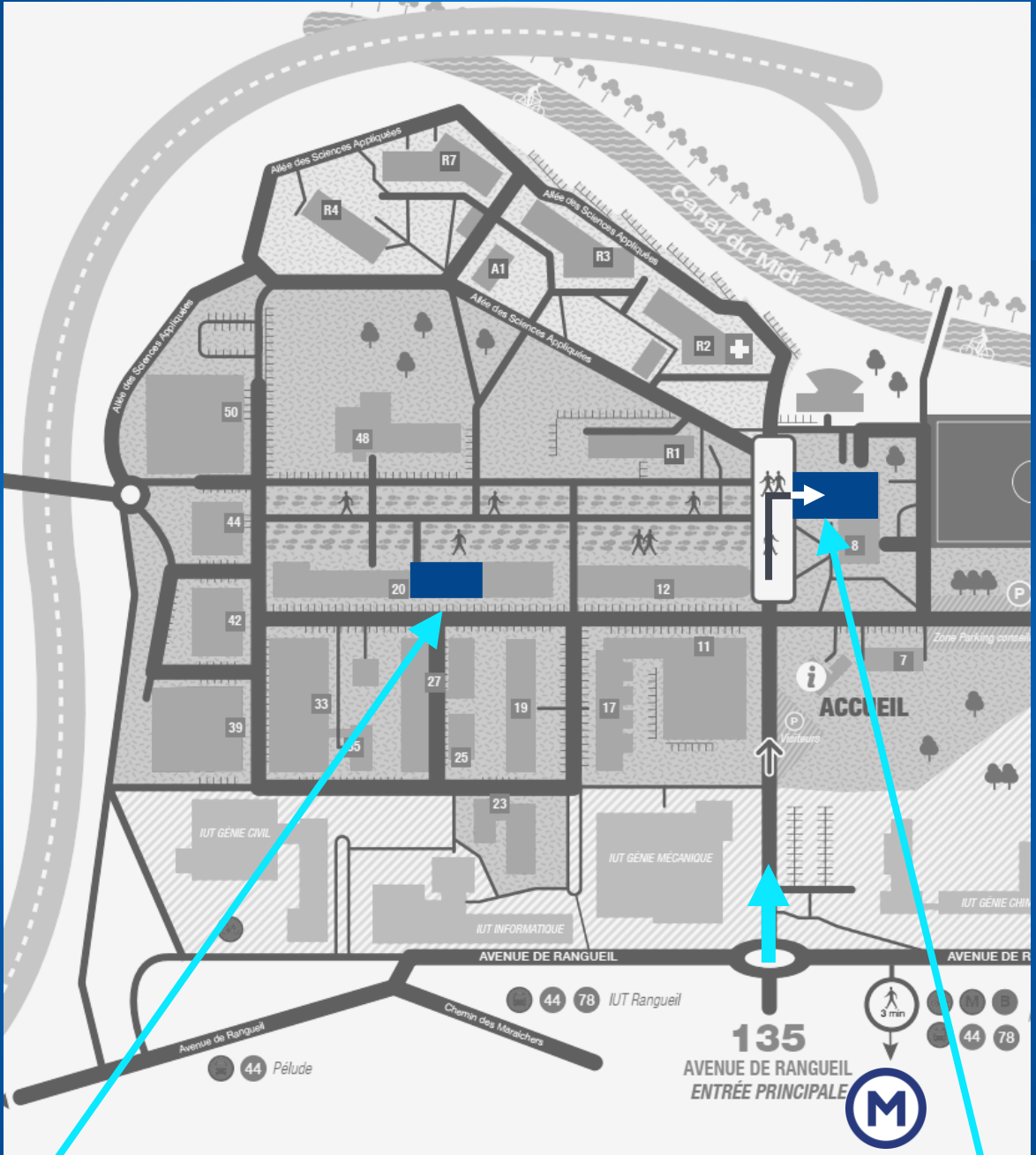
MagIDD: MAGnetic field-Induced anticancer Drug Delivery from magnetic nanocomposites
Julian CARREY, LPCNO

10:25 – 10:40

PORRIP: Polarisation Resolved Reflectance In Pulsed-fields
Duncan MAUDE, LNCMI

10:40 – 10:55

T-REX: Twisted light for quantum control of Rydberg EXcitons
Thomas BOULIER, LPCNO



Amphi Vinci (ground floor): scientific presentations
 Room 107 (1st Floor): SAB auditions

Pierre et Marie Curie Hall:
 Posters cocktail and lunch