

LPS – LPTMS Les Houches Oxy-jeunes - 31/05-2/06/2021

Monday

LPS – Magnetism and superconductivity – 9h-11h

Ballu Xavier, Supercurrent noise and dynamics of topological edge states

Chatterjee Dipranjan, Exploring Magnetism with NMR(Nuclear Magnetic Resonance)

Panigrahy sujit kumar, Magnetic skyrmions

Uldemolins Mateo, Yu-Shiba-Rusinov states in s-wave superconductors

Vallejo Jorge, Orbital magnetism in Graphene.

Vaunat Antoine, Electromagnon : new type of excitation in multiferroic compounds

Wengen Zheng, Study of the nuclear and magnetic structures of BaFe₂Se₃

Berges Leo, Ferrimagnetic Skyrmions in ferrimagnetic thin films

LPTMS – Self-assembly in biophysics – 11h30-12h30

Hugo Leroy, Introduction to equilibrium self-assembly

Valerio Sorichetti, Cooperative polymerisation

Mayarani M, Self-assembly for experimentalists

Felix Benoit, Fundamental principles governing non-equilibrium multi-component self-assembly

Lara Koehler, Using machine-learning to classify complex crystalline structures

Tuesday

LPTMS – Quantum physics – 9h-10h30

Saverio Bocini, Relaxation in integrable quantum many-body systems

Lenart Zadnik, Generalized hydrodynamics

Kemal Bidzhiev, Integrable spin chains and numerical renormalization

Lorenzo Gotta, Pairing phenomena in one-dimensional spinless fermion systems

Alberto Biella, Open quantum many-body systems

Saptarshi Majumdar, Many-body localization in open quantum systems

LPS – Soft matter – 11h-12h30

Chia-Ping Su, Low-Energy Excitations in Transition-Metal Oxides by STEM-EELS Spectromicroscopy

Commereuc Alexis, Deposition de mousse sur surfaces rugueuses

Etienne Fayen, Self-assembly of soft quasicrystals

Qingxuan Jia, Phase contrast

Torres Lazaro Marina, Self-assembly of patchy virus rods

Vertchik Kahina, Order and disorder in DNA toroids analyzed by cryo electron microscopy

Bag Soumen, Theoretical study of relaxation dynamics in fermion model

Wednesday

LPS – 2D physics – 9h-11h

Baaboura Jassem Les états spin-vallées dans les dichalcogénures de métaux de transition

Bonnet Noémie Unveiling nanometer-scale light emission in the electron microscope

Fuhui Shao, Understanding transition metal dichalcogenide absorption line widths in electron energy loss spectroscopy

Graf Ansgar, Quantum geometry and flat bands in multiband systems,

Le Pennec Brendan, Quantum Spin Liquid on kagome lattice : history & motivation

Sun Yan, Ultrathin Halide Perovskite Nanosheets

Woo Steffi, Excitonic Absorption Signatures of Twisted Bilayer WSe₂ by Electron Energy-Loss Spectroscopy

Bernard Alexandre Topological states in bismuth nanoring via supercurrent switching statistics

LPTMS – Classical problems – 11h30-12h30

Mauro Pastore, Quenched disorder and ergodicity breaking

Benjamin de Bruyne, Survival probability of a random walk.

Ana Flack, Random matrices and Coulomb gases

Federico Lanza, Optimal paths of yield stress fluids in porous media

Li Gan, Random walks on two-dimensional lattice