



hD day

November 22nd 2018

Institut de botanique
163 rue Auguste Broussonnet
34000 Montpellier

Dear colleagues,
Welcome and thank you for your participation!

We are delighted to welcome you to this scientific event organized by our PhD students. This day aims to showcase the different research thematic in our laboratory.

The dense and various program reflects the dynamic of the Charles Coulomb laboratory. The objective of each presentation is to introduce the research work of every student. The idea is to highlight the specificity and the employed methodology while avoiding using jargon and going too much into detail.

Although the program is dense, we are hoping that you will enjoy this day and it will result in instructive discussion and strengthen the bound between the different axis of our laboratory.

The organizing team
Carole Ann Charles, François Chiaruttini, Jeanne Simon
Christelle Eve, Christian Ligoure



MORNING SESSION 9h-12h50

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8h45	WELCOME	
9h	Introduction by Pierre LEFEBVRE and François CHIARUTTINI	
9h10	Jinane ELIAS « Fabrication of Opto-fluidic "Lab on Chip", using 2D and 3D Laser Writing of Organic-inorganic Hybrid Materials »	PA
9h20	Benjamin GUISELIN « Constraining the theories of the glass transition »	PTH
9h30	Camille SCALLIET « Are amorphous solids marginally stable? »	PTH
9h40	Thomas PELINI « Study of optical and magnetic properties of single defects in hBN »	PEPS
9h50	Jeanne SIMON « Combining MRI development and modeling approach to assess water and carbon fluxes in tomato plant architecture in response to water and heat stresses »	BNI
10h00	Saddem CHOUAIEB « Detecting orbital magnetism in graphene via NV centers »	PEPS
10h10	Rupert COY « Neutrino physics and lepton flavour violation »	PTH
10h20	Leandro HOSTERT « Thin film graphene-derived nanocatalysts for multiple applications »	MMV
10h30	Florentin FABRE « Magnetometry with a single spin microscope »	PEPS
10h40-11h10 COFFEE BREAK		
11h10	Zhen ZANG « Fracture of silicate glasses: Insights from atomistic computer simulations »	PTH
11h20	Christophe IATOSTI « Croissance et physique des chalcopyrite CIGS à grand gap et cellules photovoltaïques tandem »	PA
11h30	Myriam JORY « Biophysical approach of the mucociliary function of the Human bronchial epithelium: Mucus rheology and cilia beating coordination »	MMV
11h40	Chahine ABBAS « Spectroscopy of indirect excitons and electrons spin in semiconductor nanostructures »	PEPS
11h50	Abir AOUMI « A mysterious liquid crystal phase »	MMV
12h	Romain CHAMBARD « Photoinduced process in hybrid carbon nanotubes »	NANO
12h10	Gabriel DAVID « Phase transitions in DNA polymer with interacting DNA-bound proteins »	PTH
12h20	François CHIARUTTINI « Indirect excitons in wide bandgap quantum wells »	PEPS
12h30	Laura CASSAS FERRER « Microfluidic flow of biomimetic tissues »	MMV

12h40-14h10 LUNCH BUFFET

AFTERNOON SESSION 14h10-17h40

14h10	Anthony GOURDIN « Actives metasurfaces in visible and infrared »	PEPS
14h20	Carole Ann CHARLES « Elastocapillary effects in transient networks »	MMV
14h30	Rodrigo CALDERON « The paradigm of « Inflation" »	PTH
14h40	Aurélien FLATRES « Organ-on-chip: understanding and mimicking skeletal muscle for new treatment »	PA
14h50	Alrik DURAND « Solid-state spin-photon interface in the telecom bands for quantum telecommunication networks »	PEPS
15h	Marouane MERBARKI « New insights into pressure-induced polyamorphism in oxide glasses »	MMV
15h10	Amandine LABOULAIS « In search of behaviorally validated physiological markers of tinnitus in rodents: an approach centered on Magnetic Resonance Imaging methods »	BNI
15h20	Hongyang TANG « The dynamics of active colloids in 2D »	MMV
15h30	Joris PARET « Hidden order in disordered materials »	PTH

15h40-16h10 COFFEE BREAK

16h10	Christine ELIAS « Optical spectroscopy on hexagonal boron nitride (hBN) »	PEPS
16h20	Alessandro CARBONARO « Interfacial tension between miscible fluids »	MMV
16h30	Vladimir PIMONOV « Growth kinetics of individual carbon nanotubes »	NANO
16h40	Angela HAYKAL « Nanoscale magnetic imaging using NV center magnetometry »	PEPS
16h50	Mikhail FADEEV « Terahertz spectroscopy of InAs/GaSb structures for fundamental physics »	PA
17h	Valerio SORICHETTI « Characterizing the structure of a polymer liquid »	PTH
17h10	Asma FATNASSI « Biodegradation and fragmentation of polymers at sea »	MMV
17h20	Yoann MERIGUET « Bio-sensors for THz spectroscopy of proteins »	PA
17h30	Walid REDJEM « Optical properties of an ensemble of G-centers in silicon »	PEPS

17h40-18h30 FREE TIME FOR DISCUSSION