



hD day

March 20th 2020

Institut de Botanique de
l'université de Montpellier

(163 rue Auguste Broussonnet)

Dear colleagues,

Welcome to the PhD day of the Laboratoire Charles Coulomb. This day is a major annual scientific and convivial event in our laboratory where PhD students present their research topics. It is a great opportunity for everyone, from PhD students to post-doctoral students and researchers, to discover the diversity of the research lines conducted in the laboratory and to get acquainted with each other to strengthen the relationships between the different teams of the laboratory. This year we have a lot of participants so that the program is very dense.

Each student has 10 minutes for presentation and questions from the audience. However, the scientific discussions can be continued during the two coffee breaks and the lunch break in an informal atmosphere.

Thank you for your attendance and enjoy the day,

The organizers:

Laura Casas Ferrer, Benjamin Guiselin, Haitham Hrich, Vladimir Pimonov
Christelle Eve, Christian Ligoure.



MORNING SESSION (9h – 12h40)

8h30	ARRIVAL COFFEE (Check in)	
9h	Introduction by Pierre LEFEBVRE	
9h10	Carole Ann CHARLES "Viscoelasticity and elastocapillarity of an inertial liquid shock"	MMV
9h20	Rosa Maria D'AMBROSIO GONCALVES "Photo-thermal properties of single wall carbon nanotubes (SWNT)-based microgels"	NANO
9h30	Rodrigo CALDERON "On the linear growth of cosmic perturbations"	PTH
9h40	Colin AVOGADRI "Effet Hall Quantiques de spin dans les matériaux III-V"	PA
9h50	Kevin AUSTRY "Force et transfert de chaleur dans les systèmes nanostructurés"	PEPS
10h	Jeanne SIMON "Combining MRI development, histology and modeling approach to assess the distribution of resources in plant architecture - case of the tomato plant and of the response to water deficit"	BNI
10h10	Carole CHEVALIER "Modelling Spatio-temporal Dynamic of Ribosome During Translation"	PTH
10h20	Léna CHENAIS "High-performance HRG"	PA
10h30	Yoann BARON "Optically-active point defects in silicon for quantum technologies"	PEPS
COFFEE BREAK (10h40 – 11h10)		
11h10	Vladimir PIMONOV "Optical studies of the growth kinetics of individual carbon nanotubes"	NANO
11h20	Florentin FABRE "Magnetic imaging of CrTe ₂ flakes with a single spin microscope"	PEPS
11h30	Alessandro CARBONARO "Effective interfacial tension in miscible molecular fluids"	MMV
11h40	Zhen ZHANG "Chemical bonding in oxide glasses: Insights from first-principles calculations"	PTH
11h50	Ivanovitch CASTILLO ARVELO "Josephson Junctions by Electrostatic tuning of Dichalcogenides"	PA
12h	Alrik DURAND "Single artificial atoms in silicon emitting at telecom wavelengths"	PEPS
12h10	Loïc FERNANDEZ "Quantum Chromodynamics at finite temperature and density"	PTH
12h20	Harry DAWSON "Towards a flexible Microfluidics: Modular microfluidic bio systems to achieve rapid prototyping"	PA
12h30	Christine ELIAS "Optical spectroscopy of hexagonal boron nitride"	PEPS

LUNCH BREAK (12h40 – 14h10)

AFTERNOON SESSION (14h10 – 17h40)

14h10	Haitham HRICH "Gaphene monolayer: growth , optical and electrical properties"	PA
14h20	Angela HAYKAL "A journey into the tuneable antiferromagnetic spin textures of BiFeO3"	PEPS
14h30	Joris PARET "Structural communities in supercooled liquids"	PTH
14h40	Jinane ELIAS "Hybrid Organic-Inorganic photoresists, a promising class of materials for Optofluidic integration"	PA
14h50	Chouaieb SADDEM "NV imaging of ferromagnetic skyrmions"	PEPS
15h	Paul SOUDON "Mechanisms of spatio-temporal regulation of translation and transcription: biophysical modelling of Ribo-seq experiments"	PTH
15h10	Clara MANESCO "Broadband Coherent Anti-stokes Raman micro-Spectroscopy for optical label-free readout of Spinal Cord Injury"	BNI
15h20	Laura CASAS FERRER "Microfluidic flow of biomimetic tissues"	MMV
15h30	Said PASHAYEV "Water confinement in single walled carbon nanotubes: phase states and molecular dynamics"	NANO

COFFEE BREAK (15h40 – 16h10)

16h10	Benjamin GUISELIN "Random Field Ising Model criticality in supercooled liquids"	PTH
16h20	Marouane MEBARKI "New insights into pressure-induced polyamorphism in oxide glasses"	MMV
16h30	Aurélien FLATRES "Skeletal muscle injury in intensive care unit (ICU): Tissue engineering model for diagnosis and therapeutics"	PA
16h40	Rana TANOS "Quantum sensing with NV center in diamond: novel imaging modalities"	PEPS
16h50	Yoann MERIGUET "Terahertz spectroscopy of proteins"	PA
17h	Alban DESOUTTER "Microscopie Brillouin sur membrane biologique"	PTH
17h10	Maxime ROLLO "Senseurs quantiques de température aux échelles nanométriques"	PEPS
17h20	Bruno ROBERT "Peptides as chalcogenide-organic linkers for biosensing"	BNI

FREE TIME FOR DISCUSSION (17h30-18h30)