

### Monday 16/09

### Tuesday 17/09

### Wednesday 18/09

**09:30** Kenji Yasuda (Cornell University, USA) Moiré substrate and nonvolatile memory based on sliding ferroelectricity

**10:10** Gaia Maffione (C2N, Paris-Saclay, France) Ferroelectricity in dynamically rotatable dual-gated heterostructures

**10:35** break

**11:00** Jonathan Finley (TUM, Munich, Germany) Probing interactions in 2D-heterostructures: excitons, phonons and strongly correlated phases

**11:40** Amalia Patané (Nottigham University, UK) Ferroelectric semiconductors with inverted Mexican Hat-Shaped Valence Band

**12:20** Pedro Soubelet (TUM, Munich, Germany) Trion kinetics and 1D exciton confinement in monolayer MoSe2 near ferroelectric domain walls in periodically poled LiNbO3

**12:45** lunch break

**14:00** Jinghua Teng (IMRE A\*STAR, Singapore) Electro-optic and excitonic effect in 2D materials for tunable metaoptics

**14:40** Sebastien Roux (LPCNO, Toulouse, France) Interaction between a ferroelectric hexagonal boron nitride interface and a 2d semiconductor

**15:05** Ziliang Ye (University of British Columbia, Canada) Ferroelectric switching of light-matter interactions in rhombohedral MoS2

**15:45** break

**16:05** Du LuoJun (IoP CAS, Beijing, China) 2D sliding ferroelectric memories and synapses

**16:45** Simon Salleh Atri (Tel Aviv University, Israel) Spontaneous electric polarization in graphene polytypes

**17:10** Emeline Nysten (University of Munster – Germany) Manipulation of Transition Metal Dichalcogenides Properties Using Surface Acoustic Waves

**17:35** Poster session

**18:30** go to Antibes

**19:45** Gala Dinner in Antibes old town (Le Safranier)

**09:30** Astrid Weston (University of Manchester, UK) Tunnel junctions based on interfacial two dimensional ferroelectrics

**10:10** Anna Ott (GREMAN, Tours, France) Spatially-resolved spectroscopy of ferroelectric layers

**10:35** break

**11:00** Matthieu Jamet (CEA Grenoble, France) Epitaxial growth of the 2D ferroelectrics In2Se3 and van der Waals heterostructures

**11:40** Gaia Di Berardino (C2N, Paris-Saclay, France) 3R-2H lateral heterojunctions in bilayer WSe2 grown by CVD

**12:05** end

• Dinners are in Antibes downtown

• Talks, poster session, breaks and lunches are at CRHEA-CNRS (rue. B. Gregory, Valbonne)

**12:30** registration, welcome

**14:30** intro

**14:40** Moshe Ben Shalom (Tel Aviv University, Israel) Sliding vdW polytypes

**15:20** Romain Bourrelrier (Park Systems, Orsay, France) A Comprehensive Look at Ferroelectric 2D material Materials using Scanning Probe Microscopy

**15h45** break

**16h00** Dirk Englund (MIT, USA) Optical Neural Networks

**16:40** Bohdan Kundys (IPCMS, Strasbourg, France) Towards single wavelength optical neuromorphics with 2d/photoferroelectric heterostructures

**17:05** break

**17:25** Louis Pacheco (CSI Instruments, France). TBA

**17:35** Jean-François Dayen (IPCMS, Strasbourg, France) Van der Waals ferroelectric heterostructures for in-memory computing and beyond Moore electronics

**18:15** go to Antibes

**19:30** Dinner in Antibes harbor (Bistro Margaux)