OSEPI *(GDR MATEPI)*
Workshop on oxide and semiconductor epitaxy

Monday May 13th – Friday May 17th 2024

La Villa Clythia, Frejus (Var), France

Session I : **Growth mechanisms**

Roman Engel-Herbert (Paul Drude Institute Berlin)
Hybrid oxide MBE: possible pathway to achieve semiconductor grade complex oxide thin films?

Jean-Christophe Harmand (C2N Saclay)
Some mechanisms of III-V nanowire growth

Session II **: Structural and functional characterization**

Laura Bocher (LPS Orsay)
How will electron spectromicroscopy reveal "all the secrets" of your oxides down to the atomic scale? ... at least their structural, chemical, and electronic features !

Julien Barjon (GEMaC Versailles)
Characterisation of defects in wide bandgap semiconductors

Session III : **Properties engineering using epitaxy**

Daniele Preziosi (IPCMS Strasbourg)
Stabilization of nickelate infinite-layer phase: from 'soft-chemistry' to 'soft-physics'

Fabrice Semond (CRHEA Valbonne)
Niobium nitride, a newcomer to the III-nitride semiconductor family: Epitaxy of metal/semiconductor, semiconductor/superconductor hybrid heterostructures

Session IV : **Hybridization**

Valérie Demange (ISCR Rennes)
Oxide nanosheets as seed layers for growth of complex oxides

Charles Cornet (FOTON Rennes)
III-V/Si epitaxial growth and antiphase domains: a matter of symmetry

Session V : **From properties to devices**

Vincent Garcia (CNRS-Thales Palaiseau)
Scanning probe microscopy for functional oxide thin films

Maria Tchernycheva (C2N Saclay)
Nitride nanowire light emitting diodes: from single wire properties to device applications

Guillaume Agnus (C2N Saclay)
Oxide thin films processing: some examples on how to take advantage of perovskite properties into devices

Maëva Fagot (IES Montpellier)
Mid-IR lasers grown on highly mismatched substrates

+ 3 plenary contributions for a global overview of the thematic

Clément Merckling (IMEC Belgium)
About the central role of materials exploration and crystal growth in advanced and future electronic, photonic and quantum devices

Judith Driscoll (Cambridge university)
The potential for enhanced functional properties offered by vertically aligned nano composite films

Eric Tournié (IES Montpellier)
MBE : some challenges and evolution

Information, registration : https://osepi.sciencesconf.org/