

# OSEPI

## Workshop on oxide and semiconductor epitaxy

Monday May 13<sup>th</sup> – Friday May 17<sup>th</sup> 2024

La Villa Clythia, Frejus (Var), France

### Session I : Growth mechanisms

**Roman Engel-Herbert** (Paul Drude Institute Berlin)

*Title to be confirmed*

**Jean-Christophe Harmand** (C2N Saclay)

*Some mechanisms of III-V nanowire growth*

GDR MATEPI

### 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)

*Title to be confirmed*

### 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 : Physical properties and applications

**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*

### Session VI : Microfabrication, devices

**Guillaume Agnus** (C2N Saclay)

*Oxide thin films processing: some examples on how to take advantage of perovskite properties into devices*

**Laurent Cerutti** (IES Montpellier)

*Mid-IR lasers grown on highly mismatched substrates*

### + 3 plenary contributions for a global overview of the thematic

**Clément Merckling** (IMEC Belgium)

*Title to be confirmed*

**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/>