

# INSTITUT D'ETUDES SCIENTIFIQUES DE CARGESE

## Cargèse International School 2019

# International School on Oxide Electronics - ISOE 2019

June 25 - July 05, 2019

## Website

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Depuis 80 ans, nos connaissances  
bâtissent de nouveaux mondes

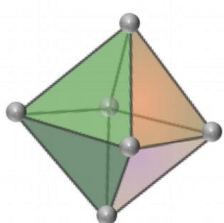
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Initiated by the progress in thin film growth since the discovery of high  $T_C$  superconductors, the field of Oxide Electronics took off at the end of the 1990's and is now growing at an exponential pace. Major breakthroughs over the last fifteen years include the advent of multiferroics and the discovery of several unexpected phases at oxide interfaces, epitomized by the high-mobility two-dimensional electron gas found at the interface between two band insulators,  $\text{LaAlO}_3$  and  $\text{SrTiO}_3$ . Novel physical phenomena have also been revealed in ultrathin films of ferroelectric or correlated electron systems, as well as giant responses and phase transitions induced by light or electric field, with potential for innovative devices. During this 5th Edition of the International School of Oxide Electronics (ISOE2019), basic notions of solid-state physics (ferroelectricity, magnetism, optics, correlations, etc.) will be recalled, but the school will also give an extended overview of the field, covering topics such as multiferroics, oxide interfaces, domain walls, spintronics. Oxide-based devices will also be presented in details, as well as key advanced characterization and computational techniques. ISOE2019 aims at gathering PhD students, post-docs, young scientists and senior researchers working in Oxide Electronics for almost two weeks to build up the future Oxide Electronics scientific community.

### Main topics will include

- \* Oxide Electronics
- \* Ferroelectrics
- \* Spintronics
- \* Multiferroics
- \* Interfaces

### Eminent scientists in the field will animate the workshop. These include:

*Ausrine Bartasyte (Femto-ST Institute, France), Manuel Bibes (CNRS-Thales, France), Hans Boschker (Max Planck Institute for Solid State, Germany), Gustau Catalan (ICN2, Spain), Jean-Yves Chauleau (SPEC-CEA, France), Jean Fompeyrine (IBM Research Zürich, Switzerland), Béatrice Grenier (Univ. Grenoble Alpes & INAC-CEA, France), Mark Huijben (Univ. Twente, Netherlands), Masashi Kawasaki (Univ. Tokyo, Japan), Céline Lichtensteiger (Univ. Genève, Switzerland), Lane Martin (Univ. Berkeley, USA), Xavier Moya (Univ. Cambridge, United Kingdom), Cinthia Piamonteze (Paul Scherrer Institute, Switzerland), Silvia Picozzi (CNR-SPIN, Italy), Nicolas Reyren (CNRS-Thales, France), Odile Stephan (LPS, France), Jeroen Van der Brink (IFW Dresden, Germany), David Vanderbilt (Rutgers Univ., USA), Michel Viret (SPEC-CEA, France)*

### Scientific Committee

Manfred Fiebig (ETH Zürich, CH), Philippe Ghosez (Univ. de Liège, BE), Agnès Barthélémy (CNRS-Thales, FR), Jacobo Santamaria (Univ. Complutense Madrid, ES), Michel Viret (SPEC-CEA, FR)

### Organization Committee

Vincent Garcia (CNRS-Thales, FR), Stéphane Fusil (CNRS-Thales, FR), Brahim Dkhil (Centrale-Supélec, FR), Jean-Yves Chauleau (SPEC-CEA, FR), Sylvia Matzen (C2N, FR), Manuel Bibes (CNRS-Thales, FR), Jens Kreisel (Univ. of Luxembourg, LX)

### Application and registration

<http://isoe2019.cnrs.fr/>

Contact : [isoe.org@gmail.com](mailto:isoe.org@gmail.com)

Application deadline : 2018, December 15th

Registration fee : 750€ (PhDs, Post-Docs), 950€ (Permanent staff)