

# Second UNSW Summer School on Ferroelectrics - 2018



(UNSW-SSF '18)

Monday 10 Dec – Friday 14 Dec, 2018

## The University of New South Wales, Sydney

The *UNSW-SSF '18* aims at attracting PhD students, post-docs, young scientists and senior researchers interested in the field of ferroelectrics for five days in the vibrant city of Sydney, to build up future Asia-Pacific ferroelectrics community. The School will focus on fundamental science, as well as cutting edge and emerging applications.

Fundamental notions of ferroelectricity, piezoelectricity, and multiferroics will be covered, followed by more specific topics such as thin films, interfaces, domain walls and key advanced characterisation and computational techniques. To assist participant learning, lab demonstrations and experiments will constitute ~25% of the content. Finally, networking opportunities will be offered through a range of social activities.

### Topics covered in the School:

- Fundamentals of ferroelectricity
- Structural and electrical characterisation
- Domains and domain walls
- Multiferroics
- Defect chemistry in metal oxides
- Electron microscopy
- First principles calculations
- Current and future applications
- Bulk ceramics and thin films synthesis

### Lab demonstrations:

- Hysteresis measurements
- X-ray diffraction
- Scanning probe microscopy
- Impedance spectroscopy etc.

### Contact:

- **Web:** [unsw-ssf.unsw.edu.au](http://unsw-ssf.unsw.edu.au)
- **E-mail:** [unsw.ssf18@gmail.com](mailto:unsw.ssf18@gmail.com)

### Confirmed Lecturers:

- **Alexei Gruverman**  
(University of Nebraska–Lincoln, USA)
- **Dragan Damjanovic** (EPFL, Switzerland)
- **Marty Gregg** (Queen's University Belfast, UK)
- **Kaushik Bhattacharya**  
(California Institute of Technology, USA)
- **Jacob Jones** (NC State University, USA)
- **Brahim Dkhil** (CNRS/CentraleSupélec, France)
- **Shujun Zhang** (UOW, Australia)
- **Eddie Chu** (NCTU, Taiwan)
- **Ho Nyung Lee** (Oak Ridge National Lab, USA)
- **Laurent Bellaiche** (University of Arkansas, USA)
- **Paul Munroe** (UNSW, Australia)
- **John Daniels** (UNSW, Australia)
- **Nagy Valanoor** (UNSW, Australia)

### Key Dates

**Registration Opens:** 14<sup>th</sup> May 2018  
**Registration Closes:** 15<sup>th</sup> October 2018

**Fees:** AUD \$270 / 330



School of  
Materials Science  
& Engineering

