



# UNSW Summer School on Ferroelectrics -2018

(UNSW-SSF '18)

Monday 5 Feb – Friday 9 Feb, 2018

**UNIVERSITY OF NEW SOUTH WALES, SYDNEY, AUSTRALIA**

*UNSW-SSF '18* aims at attracting PhD students, post-docs, young scientists and senior researchers working 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 characterization and computational techniques. To assist participant learning, lab demonstrations/experiments will constitute ~30% of the content. Finally, networking opportunities will be offered through a range of social activities, including a welcome reception and trivia night.

## **Topics covered in the school:**

- Fundamentals of ferroelectricity (Landau theory and others)
- Structural, electric, and piezoelectric characterisation
- Domains and domain walls
- Multiferroics; defect chemistry
- Microscopy (optical, SPM, TEM, etc.)
- First principles calculations
- Current and future applications of ferroelectrics
- Fabrication of bulk ceramics and thin films

## **Fees:**

AUD \$300, Covering breakfast and coffee breaks, dinner and social activity

## **Confirmed Lecturers:**

- Jacob Jones (NC State University, USA)
- Shujun Zhang (UOW, Australia)
- John Daniels (UNSW, Australia)
- Claudio Cazorla Silva (UNSW, Australia)
- Paul Munroe (UNSW, Australia)

## **Lab demonstrations:**

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

**Website:** [unsw-ssf.unsw.edu.au](http://unsw-ssf.unsw.edu.au)

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