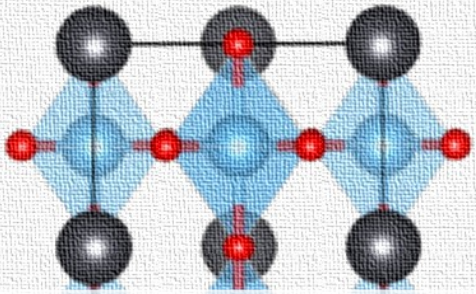
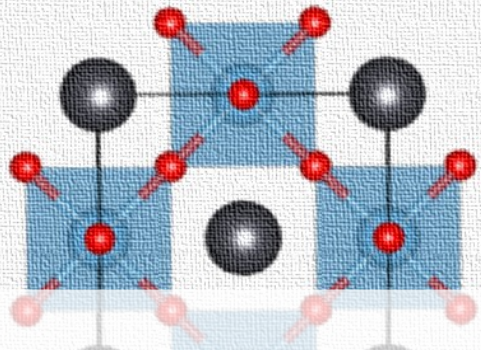
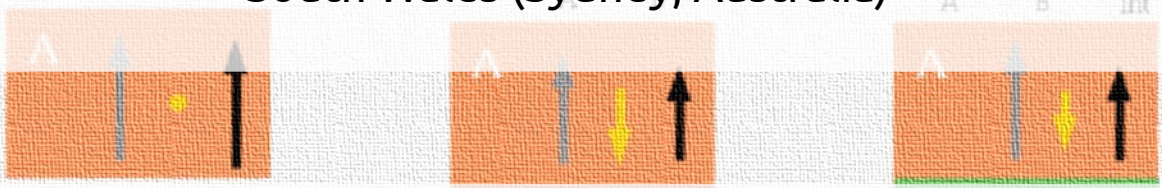



3-years PhD positions in "Computer Simulation of Energy Conversion Phenomena in Complex Oxide Materials" are available in the group of Dr. Claudio Cazorla in the School of Materials Science and Engineering in the University of New South Wales (Sydney, Australia)



The major goal of this overarching project is to develop a comprehensive first-principles simulation approach for tailoring and assessing the potential of multiferroic oxide-based layered materials (thin films and superlattices) in energy conversion applications (photovoltaic, multicaloric, and thermoelectric). This work will involve (i) the use of state-of-art computational methods based on density functional theory that permit to constrain the value of the relevant macroscopic electrical and magnetic variables (e.g., electric polarization, electric displacement and magnetization) in the simulations, and (ii) the calculation of solid-state free energies.

Interested applicants send a (i) detailed CV, (ii) copy of transcripts (i.e., academic report), (iii) motivation letter, and (iv) at least one reference letter, to c.cazorla@unsw.edu.au