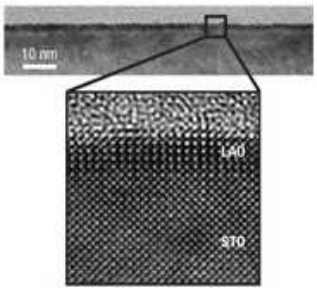
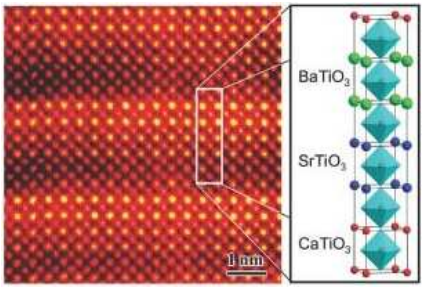
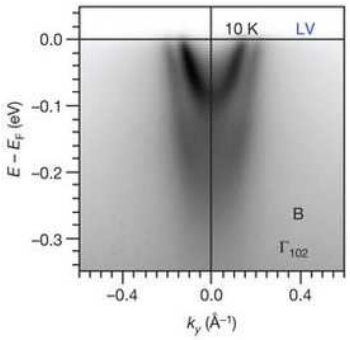
Oxide heterostructures, interfaces, and surfaces



Nature Materials **7**, 621 (2008)



Nature **433**, 395 (2005)



Nature **469**, 189 (2011)

The study of heterostructures, interfaces and surfaces of transition metal oxides has become a fertile playground in the search for new collective phenomena that arise out of strong microscopic interactions. Surprising results have come out of this field, including the observation of metallicity, superconductivity and magnetism at the interface of paramagnetic insulators.

Researchers with diverse interests and expertise are active in this field. In addition to the materials science aspect, this field has spurred innovation in experimental techniques such as scanning tunneling microscopy, scanning transmission electron microscopy and angle resolved photoemission spectroscopy. Theory has also played a big part in explaining and predicting how the electronic and magnetic behaviors change when the dimensionality is reduced.

This mini-symposium will gather researchers with various backgrounds, either experimental or theoretical, working in the general field of low-dimensional materials. Topics will include electronic surface states, microscopic imaging of heterostructures, electric control of magnetism in thin films, and many more.

Invited speakers:
Antoine Maignan (CRISMAT Caen)
Alexandre Gloter (LPS Orsay)
Shamashis Sengupta (CSNSM Orsay)

Organizers:
Alaska Subedi (CPHT, Ecole Polytechnique)
Silke Biermann (CPHT, Ecole Polytechnique)