

Department of Physics

Condensed Matter Physics
Clarendon Laboratory, Parks Road, Oxford OX1 3PU



CONDENSED MATTER SPECIAL SEMINAR

Thursday 4 October at 2.15pm

“Interface-Engineering and Emergent Quantum Phenomena in Oxide Heterostructures”

Prof T. Venky Venkatesan
National University of Singapore

Complex oxide interfaces have mesmerized the scientific community in the last decade due to the possibility of creating tunable novel multifunctionalities, which are possible owing to the strong interaction among charge, spin, orbital and structural degrees of freedom. Artificial interfacial modifications, which include defects, formal polarization, structural symmetry breaking and interlayer interaction, have led to novel properties in various complex oxide heterostructures.

These emergent phenomena not only serve as a platform for investigating strong electronic correlations in low-dimensional systems, but also provide potential for exploring next-generation electronic devices with high functionality. This talk reviews some recently developed strategies in engineering functional oxide interfaces and their emergent properties.

Host: Prof Paolo Radaelli

Audrey Wood Seminar Room, Clarendon Laboratory