



Università di Roma “Tor Vergata”



Consiglio Nazionale delle Ricerche

INCONTRO

Nell’ambito degli “Incontri sulla sensoristica” il giorno venerdì 28 ottobre 2011 alle ore 15.00 presso l’aula R3 del Dipartimento di Ingegneria Elettronica dell’Università di Roma Tor Vergata (edificio di Ing. dell’Informazione, piano terra) il Prof. Giuseppe Balestrino dell’Università di Roma Tor Vergata e associato dell’Istituto CNR SPIN terrà un seminario su:

Oxide materials engineering by layer-by-layer deposition

Recent developments in thin film growth techniques have opened new perspective for the deposition atomic layer by atomic layer of heterostructures based on complex oxides.

This has made possible to engineer oxide heterostructures showing novel and interesting physical properties which do not belong to the constituent layers.

Three examples will be discussed:

- 2D electron gas at the interface between different oxides
- Induced superconductivity in oxide heterostructures
- Enhanced ionic conductivity in oxide superlattices.

Chances are good that the field of “oxide electronics”, due to the large variety of different functional properties that may be integrated in a single structure, will experience a fast development in the near future.