

Course and lectures by Professor Yasuhiro Tokura at BGU

Professor Yasuhiro Tokura of the NTT laboratories in Japan will be a distinguished visiting professor at Ben Gurion University during January 2012. Professor Tokura will deliver several lectures, as follows:

Mini course on Coherent electron spin manipulation and detection in a quantum dot system

1. Basic physics of a few electrons in a quantum dot - charging effect, spin blockade
2. Exchange interaction and spin correlation in a coupled quantum dot - spin detection
3. Coherent spin dynamics driven by oscillating electric field - Unitary operation and decoherence
4. Universal operation and application to quantum logic
5. Summary and a test for understanding

The mini-course will be given on Tuesday, January 17, 2012, between 12 noon and 3 pm, in the physics seminar room, building 54 on the BGU campus.

Colloquium: Electrically tuned spin-orbit interaction in a semiconductor quantum dot

January 19, 2011, 3:30 pm, same place

Condensed matter seminar: Current pumped, dynamical nuclear spin polarization and hysteresis behavior

January 16, 11:30 am, same place

For more details, and for meeting Prof. Tokura, contact Professor Amnon Aharony, aaharony@bgu.ac.il