



## Prof Tuson Park

### Lectures:

#### 1) Superconductivity and Magnetism I

Tuesday 26.02.19, 11:15, room 3/06, Nanotechnology Centre

#### 2) Superconductivity and Magnetism II

Thursday 28.02.19, 13:15, Faculty Board room, Nanotechnology Centre

### Consulting hours:

Monday 26.02.19, 9:30-11:30,

Tuesday 27.02.19, 9:30-11:00,  
room 0/11 Nanotechnology Centre

Faculty of Applied Physics and Mathematics invites all Students, Staff and Guests to the classes and consultations with Prof Tuson Park, the Director of the [Center for Quantum Materials & Superconductivity](#), Sungkyunkwan University, Korea. Prof Park is visiting us within the frame of the Erasmus+ programme.

### **Research Interests & Highlights**

Research interests of Prof Tuson Park center on discovering and studying new quantum phases emerging near  $T=0$  K in strongly correlated systems. These phases, such as unconventional superconductivity, unusual weak ferromagnetism, electronic ferroelectricity, etc. are unexpected from conventional theories of quantum phase transitions and often are incompletely described by model Hamiltonians. Subjecting multifunctional materials, mixed-valence materials, heavy fermion compounds and strongly correlated superconductors to pressure and magnetic (electric) field allows the exploration of the new phases using variety of experimental techniques, including specific heat, Hall effect, dielectric constant, electrical resistivity, magnetic susceptibility, and neutron scattering.

Highlights of Past Research: Ph.D. thesis research, carried out under the supervision of Dr. Myron. B. Salamon at University of Illinois at Urbana-Champaign, explored anisotropic superconducting gap structures of unconventional superconductors in which gap zeroes (or nodes) exist on the Fermi surface. Postdoctoral work of Prof Park, performed at Los Alamos National Laboratory under the guidance of Dr. Joe D. Thompson, focused on exploring and understanding new quantum phases in strongly correlated systems that emerge near  $T=0$  K.

Publications:

[https://www.researchgate.net/scientific-contributions/39911578\\_Tuson\\_Park](https://www.researchgate.net/scientific-contributions/39911578_Tuson_Park)