

Ferroics: Materials and Phenomena

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8 h (1 cfu)

19/03/2019 - 2.30-4.30 p.m. room U4-07

20/03/2019 - 2.30-4.30 p.m. seminar room Department of Material Science - U5

26/03/2019 - 2.30-4.30 p.m. seminar room Department of Material Science - U5

27/03/2019 - 2.30-4.30 p.m. seminar room Department of Material Science - U5

1. Energy levels in transition metal atoms: magnetic moment formation and spin-orbit coupling
2. Crystal structures, symmetries and chemical bonds in Transition Metal Oxides
3. Crystal field theory and Jahn-Teller effects
4. Spin, charge and orbital ordering, phase transitions and spontaneous symmetry breaking
5. Electronic basis of magnetism
6. Magnetism and exotic phases in complex oxides
7. Ferroelectrics
8. Multiferroics