PHYS6303 - Applications of Group Theory In Physics

**PHYS 6303** Applications of Group Theory In Physics (3 semester hours) Group representation theory and selected applications in atomic, molecular and elementary-particle physics. Survey of abstract group theory and matrix representations of SU(2) and the rotation group, group theory and special functions, the role of group theory in the calculation of energy levels, matrix elements and selection rules, Abelian and non-Abelian gauge field theories, the Dirac equation, representations of SU(3), and the standard model of elementary-particle physics. Prerequisite: **PHYS 5301**. (3-0) R (2016-02-05 22:19:41)