

Phys 7646, Syllabus

Elementary particle physics II: Beyond the Standard Model

Lecturer: Prof. Yuval Grossman

- Model building and the Standard Model as an example.
- The SM at one loop: Electroweak precision measurements.
- Flavor physics.
- Neutrino physics.
- Cosmology: Dark Matter, BBN, BG and LG.
- Beyond the SM: The general questions
- Group theory and GUTs
- Supersymmetry and the MSSM
- ADD and universal extra dimension models
- RS models and their relation to Technicolor and ADS/CFT