Physics 451 – Introduction to Supersymmetry and Supergravity
General Information

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Recommended references:

S. Martin, hep-ph/9709356
J. Wess and J. Bagger, *Supersymmetry and Supergravity*
P. West, *Introduction to Supersymmetry and Supergravity*
S. Weinberg, *The Quantum Theory of Fields*, vol. III.

Web page: `http://www.slac.stanford.edu/~mpeskin/Physics451/`

Syllabus

1. Representations of N=1 supersymmetry in 4 dimensions
2. Construction of supersymmetric actions; superspace.
3. Actions for $N > 1$ supersymmetry and supersymmetry in higher dimensions.
4. Supergravity in 4, 5, 11 dimensions.
5. Coupling of matter to supergravity in 4 dimensions.
6. Realistic models of particle physics incorporating supersymmetry.