

| | |
|----------------|--|
| Module: | Elective Advanced Lectures: Theoretical Physics |
|----------------|--|

| |
|-------------------------------|
| Module No.: physics70c |
|-------------------------------|

| | |
|----------------|--|
| Course: |  Supersymmetry (T) |
|----------------|--|

| |
|-------------------------------|
| Course No.: physics761 |
|-------------------------------|

| Category | Type | Language | Teaching hours | CP | Semester |
|----------|------------------------|----------|----------------|----|----------|
| Elective | Lecture with exercises | English | 3+1 | 6 | WT/ST |

Requirements for Participation:

Quantum Field Theory I

Preparation:**Form of Testing and Examination:**

Individual Oral Examinations

Length of Course:

1 semester

Aims of the Course:

Teach the students the basics of supersymmetric field theory and how it can be tested at the LHC.

Contents of the Course:

Superfields; Supersymmetric Lagrangians; MSSM; Testing the MSSM at the LHC

Recommended Literature:

Theory and phenomenology of sparticles: An account of four-dimensional N=1 supersymmetry in high energy physics.

M. Drees, (Bonn U.) , R. Godbole, (Bangalore, Indian Inst. Sci.) , P. Roy, (Tata Inst.) . 2004. 555pp.

Hackensack, USA: World Scientific (2004) 555 p.

Weak scale supersymmetry: From superfields to scattering events.

H. Baer, (Florida State U.) , X. Tata, (Hawaii U.) . 2006. 537pp.

Cambridge, UK: Univ. Pr. (2006) 537 p.