

IMPRS EPP

**21st Block Course
of the
International Max Planck Research School
on Elementary Particle Physics**

January 21 – 25, 2013, 9:45 – 11:45 AM

Seminar Room 313 - except on January 24: **Main Auditorium**

Max-Planck-Institut für Physik, Freimann

Dr. Noppadol Mekareeya

MPP Munich

Introduction to Supersymmetric Gauge Theory Dynamics

The lectures will cover the following topics:

- Basic of supersymmetry with emphasis on gauge theories
- The power of holomorphy and non-renormalisable theorems
- The concept of classical and quantum moduli spaces of vacua
- Supersymmetric QCD: classical and quantum analyses
- Non-perturbative effects and Seiberg duality
- (If time permits) Seiberg-Witten theory, electric-magnetic duality and confinement

The course is for students who have knowledge in quantum field theory (at the level of Peskin & Schroeder). Previous knowledge in supersymmetry and string theory is not assumed at all.

No registration is needed.