

Gemeinsame Veranstaltung von
Humboldt-Universität zu Berlin, Institut für Physik
(Theorie der Elementarteilchen / Computerorientierte Theoretische Physik)
DESY, Zeuthen

SEMINAR

**Feldtheorie auf dem Gitter und
Phänomenologie der Elementarteilchen**

Am Montag, dem **9. Juni**, um **15:30 Uhr s.t.** spricht

Prof. **Francesco Sannino**

University of Southern Denmark

zum Thema

The Phase Diagram of $SU(N)$ Gauge Theories: From LHC to Cosmology

Abstract

I will introduce the Phase Diagram as function of number of flavors, colors and matter representation for any gauge theory of fundamental interactions. I will briefly review the various non-perturbative methods available, both for supersymmetric and non supersymmetric gauge theories, to plot the diagram. I will also present a novel method which makes use of the newly conjectured all-order beta function for nonsupersymmetric gauge theories.

The knowledge of the phase diagram has an immediate impact on the construction of viable models of dynamical breaking of the electroweak symmetry, dark matter as well as unparticle physics.

Ort: DESY, Hörsaal 3
Platanenallee 6, 15738 Zeuthen

Web: <http://www-zeuthen.desy.de/~stschaef/seminar/seminar.html>