

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 **27. Oktober**, um **16:00 Uhr s.t.** spricht

Fabio Bernardoni

zum Thema

Chiral Perturbation Theory in the Mixed Regime

Abstract

We consider chiral perturbation theory in a finite volume and in a mixed regime of quark masses, that is N_l light quarks are taken in the ϵ regime and N_h heavier quarks are taken in the p regime. We present the results for the light meson correlators in the scalar, pseudoscalar, vector and axial vector channels, both in the full and in the partially quenched theory. Our results can be used to match lattice QCD simulations with 2+1 flavors even when the lightest pion's correlation length overcomes the size of the space-time lattice, and are particularly suitable for analyzing mixed actions simulations.

Ort: DESY, Hörsaal 3
Platanenallee 6, 15738 Zeuthen

Web: <http://people.physik.hu-berlin.de/~urbach/seminar/>