

Mathematisches Oberseminar *PDG und Spektraltheorie* (WiSe 2013/14).

**Date:** 31.10.2013.

**Time and place:** 14:15 in B 134.

**Speaker:** Leander Geisinger (Princeton University).

**Titel:** *The ground state energy of a polaron in a strong magnetic field.*

**Abstract:**

We show that the ground state of a polaron in a homogeneous magnetic field of strength  $B$  and its energy are described by an effective one-dimensional minimization problem in the limit  $B \rightarrow \infty$ . This holds both in the linear Fröhlich and in the non-linear Pekar model and we describe how these models are related.

This is joint work with Rupert L. Frank.

Thomas Østergaard Sørensen