

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

Date: 21.11.2013.

Time and place: 14:15 in B 134.

Speaker: Jan Philip Solovej (University of Copenhagen).

Titel: *The ground state energy and excitation spectrum of Bosonic atoms.*

Abstract:

I will discuss work with Lewin, Nam, and Serfaty on the Bogolubov approximation in the mean field limit of Bose gases. This extends earlier work of Seiringer on the excitation spectrum. In particular, our work allows the treatment of the asymptotics of large atoms with bosonic "electrons", which I will discuss as the main example. The main result in this case is the asymptotics of the ground state and excited energies to an accuracy which gives the leading term of the energy differences.

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