Spectral Theory and Dynamics of Quantum Systems

GRADUIERTENKOLLEG 1838

Stuttgart-Tübinger Doktorandenseminar

23. Mai 2014

Universität Tübingen

Auf der Morgenstelle 10, 72074 Tübingen

Raum N14 (C-Bau)

Programm	
14.00 – 14.25	**Tim Tzaneteas**: Deriving the Ginzburg-Landau Equations of Superconductivity
14.30 – 14.55	**Andreas Deuchert**: The lower boundedness of the BCS functional in infinite space
15.00 – 15.25	**André Hänel**: Der Dirichlet-zu-Neumann Operator und die Asymptotik von Eigenwerten eines gemischten Randwertproblems auf dem unendlichen Streifen
Kaffeepause	
16.00 – 17.00	Mathematisches Kolloquium
ab 18.30	Nachsitzung

Mathematisches Kolloquium:

My observations on how physicists use QED

Prof. Dr. Jan Dereziński (University of Warsaw)

ABSTRACT: I will start with a short story, hopefully entertaining. Then I will discuss the general philosophy of precision computations of Lamb shifts using QED, based in particular on the works of Shabaev and Pachucki. I will explain two kinds of effective Hamiltonians. Then I will discuss the formalism of time-ordered and 2-times Green's functions. Finally, if there is still time, I will say about the structure of QED and possible perturbative approaches, which are relevant for the bound state computations.