

Massachusetts Institute of Technology
Department of Physics

Condensed Matter Theory Seminar

“Kwant: A Software Package for Quantum Transport”

Anton Akhmerov
Delft Technical University

Abstract: Calculating various transport properties is as easy as writing down a linear system of tight-binding equations and solving it. Despite it sounds simple, both parts of this task turn out to be difficult. I will discuss the problems that one encounters in each step. These are not just the issues of numerical efficiency and stability, but also the task of translating from a physical problem to the corresponding linear system of equations. I will show the solution to these problems that me and my collaborators have developed, and made available in a free, open source software package Kwant (<http://kwant-project.org>).

12:00 noon
Friday, October 25, 2013
Duboc Seminar Room
Room 4-331