

# Graduate Seminar

**Speaker:**

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**Monday, March 16, 2015**

**2:00 p.m., HH-3017**

***Mean field evolution of an open quantum system***

## **Abstract:**

In this talk I will explain what an open quantum system is and what the mathematical background for this concept is. An important question is the study entanglement for systems consisting of  $N$  particles interacting with local and collective reservoirs. We consider an energy conserving, mean field coupling. Then we show that the main contribution of the  $n$ -body reduced density matrix is disentangled (at all times), however, correction terms are entangled. Note that our model is exactly solvable and it is not based on numerical approximation.