

# Workshop for Quantum Simulations of Open Quantum Systems

13-15 November 2013

A FRIAS Junior Researcher Conference

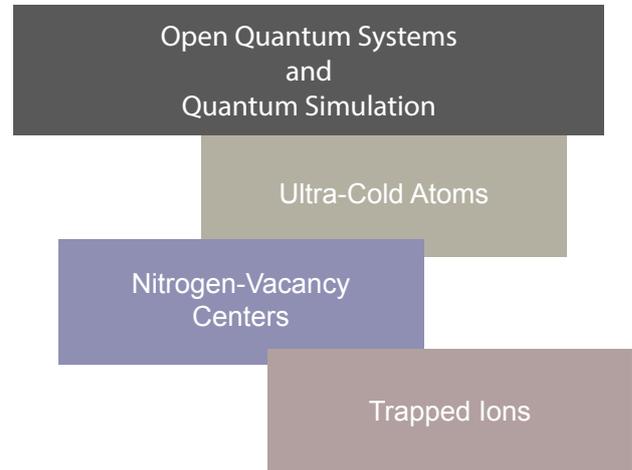
**Conference Website:**

[www.frias.uni-freiburg.de/qsoqs](http://www.frias.uni-freiburg.de/qsoqs)

**Conference Venue:**

FRIAS, Albertstr. 19, 79104 Freiburg im Breisgau

In the past, spectacular progress has been achieved in controlling the dynamics of isolated quantum systems and the study of quantum systems stimulates new routes toward novel technologies. Proof-of-principle experiments have been performed and first commercial applications have emerged. More recently, the explicit exploitation of quantum coherence has been envisioned also for clean energy technologies such as solar cells or hydrogen splitting. Here, decoherence effects due to coupling of quantum systems to the environment is a major challenge on the path toward desired applications. In our workshop we will explore the potential of quantum simulations of open quantum systems to understand and to control decoherence effects. We invite especially young researchers and students with backgrounds in theory of open quantum systems and quantum simulation as well as experimental quantum simulations.

**Invited Speakers**

Alejandro Bermudas, Ulm  
Heinz-Peter Breuer, Freiburg  
Joe Britton, Boulder  
Jonathan Home, Zürich  
Klaus Hornberger, Duisburg-Essen  
Akihito Ishizaki, Okazaki, Japan  
Michael Johanning, Siegen  
Robert Loew, Stuttgart  
Johannes Majer, Vienna  
Diego Porras, Madrid  
Guido Pupillo, Strasbourg  
Ulrich Schneider, München  
Julian Struck, Hamburg  
Thomas Wellens, Freiburg

Your abstract should include: title, author name(s), email address, and a short summary of your presentation. Please email your abstract to [qsoqs@frias.uni-freiburg.de](mailto:qsoqs@frias.uni-freiburg.de).

**Deadline for application: August 31, 2013**

**Local Scientific Coordination**

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