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**WILHELM AND ELSE HERAEUS PHYSICS SCHOOL**

Modern Statistical Methods in Quantum Information Processing  
Physikzentrum Bad Honnef, 22-26 August 2011



**Modern Statistical Methods in Quantum Information Processing**

Physikzentrum Bad Honnef, Germany, 22-26 August 2011

**Aims**

To provide an overview over the very latest theoretical and experimental developments in quantum tomographic reconstruction, with emphasis on real data processing. The lectures will cover a variety of both established and novel methods, such as Maximum-Likelihood methods, Kalman filtering and approximation methods for the efficient reconstruction of quantum-mechanical many-body systems.

The aim is to bring together researchers in the field of quantum information processing and quantum engineering from all over Europe and to give them the opportunity to gain vital experience in statistical methods for verification and validation of their experimental efforts.

The school is targeted at students/researchers of all levels, but with a strong emphasis on early-stage researchers.

**List of confirmed lecturers**

- |                                   |                            |
|-----------------------------------|----------------------------|
| <b>Martin Plenio</b>              | Universität Ulm            |
| <b>Rafal Demkowicz-Dobrzanski</b> | University of Warsaw       |
| <b>Werner Vogel</b>               | Universität Rostock        |
| <b>Zdenek Hradil</b>              | Palacky University Olomouc |
| <b>Markus Hennrich</b>            | Universität Innsbruck      |
| <b>Christine Silberhorn</b>       | Universität Paderborn      |
| <b>Madalin Guta</b>               | University of Nottingham   |

**Deadline for applications**

Friday, June 3, 2011

**More information at**

[www.heraeus2011.rhul.ac.uk](http://www.heraeus2011.rhul.ac.uk)