The Vienna Doctoral Programme on Complex Quantum Systems
invites you to a

Tutorial Seminar

by

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Correlation functions in optics and quantum optics

09 April, 2018:
I will first present in an abstract way with the correlation functions showing their relations with internal products and how they appear in data analysis, noise analysis, and signal filtering.

12 April, 2018
I will go on to temporal correlation functions (field-field, and intensity-intensity) in optics and quantum optics, including different ways to measure them. We will look at how Glauber showed how to use them in quantum optics.

16 April, 2018
This lesson presents the field intensity correlation in quantum optics and examples of its applications in measurements of quantum fluctuations in the field.

26 April 2018
We will see ghost imaging as a particular case of a correlation function and ask some questions about is applicability. Images with a pixel and the original Handbury Brown and Twiss correlations for measuring angular sizes.

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The Tutorial Seminar is scheduled 17:00 – 18:30