

# Physikalisches Kolloquium

**Kirill Melnikov, Johns Hopkins Universität, Baltimore**  
**»Perturbative QCD and the LHC physics«**

*Einführung: J. Kühn*

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Large Hadron Collider is in the process of searching for physics beyond the Standard Model. Hadron collisions, where the purported New Physics can be produced, are described by Quantum Chromodynamics, the theory of the strong force. Good understanding of strong interactions is therefore essential for separating new physics from the old one.

In this talk I will review why we believe that the theoretical understanding of the relevant aspects of the strong force is up to the task. I will also describe the recent theoretical ideas that lead to precise testable predictions of many aspects of hadron-hadron collisions and may be important for quantifying the nature of physics beyond the Standard Model.

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**Freitag, 18.05.2012, 17 Uhr c.t.,**

**KIT, Campus Süd,  
Otto-Lehmann-Hörsaal, Physik-Flachbau (Geb. 30.22).  
Anschließend Nachsitzung im Gastdozentenhaus „Heinrich Hertz“**