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Leibniz  
Universität  
Hannover

Oberseminar  
Analysis und Theoretische Physik

**Dr. Jens Kaad**

Radboud University Nijmegen

**The product of a spectral triple  
and a finitely generated module**

One of the challenges that arises when studying the geometry of non-complete manifolds is that the Dirac operator usually fails to be essentially selfadjoint and might even fail to have selfadjoint extensions. In this talk I will consider the problem of restricting a Dirac operator on a complete manifold to an essentially selfadjoint differential operator on an open subset by applying a conformal change of the Riemannian metric. This operation can be understood in the much broader framework of unbounded KK-theory and it then becomes a (rather specific) example of the unbounded Kasparov product. In the talk I will explain how to form the unbounded Kasparov product by a finitely generated module and show how this construction describes the restriction of Dirac operators to open subsets.

**Dienstag, 10.11.2015, 15:00h, Raum g005**

**Hauptgebäude der Leibniz Universität**

Dazu laden herzlich ein:  
Prof. Dr. Wolfram Bauer  
Prof. Dr. Joachim Escher  
Prof. Dr. Olaf Lechtenfeld  
Prof. Dr. Elmar Schrohe  
Prof. Dr. Christoph Walker

Weitere Informationen finden Sie auch unter [http://www.ifam.uni-hannover.de/os\\_analysis.html](http://www.ifam.uni-hannover.de/os_analysis.html)