Oberseminar
Analysis und Theoretische Physik

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Principal bundles in unbounded KK-theory

Ammann and Bär, in their work on Dirac spectra, obtained a useful decomposition of the Dirac operator on a circle bundle into a vertical term, a horizontal term, and a zero-order error term. In this talk, I will discuss a direct generalisation of Ammann and Bär's geometric decomposition to the case of principal G-bundles for G a compact connected Lie group. This includes many geometrically interesting examples such as the 3 and 7-dimensional Hopf fibrations. The terms in the factorisation contain differential geometric information. In the language of noncommutative geometry, this can be interpreted as factorisation of spectral triples, and notions such as curvature can be abstractly defined from this viewpoint. If time allows I will then discuss applications to factorising suitable toric noncommutative manifolds qua noncommutative principal bundles.
This is joint work with Bram Mesland.

Dienstag, 21.7.2015, 16:00h, 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