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## Oberseminar Analysis und Theoretische Physik

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## Elliptic complexes with generalized Atiyah–Patodi–Singer boundary conditions

Given a complex of differential (or pseudodifferential) operators on a manifold with boundary, which is exact on the level of principal symbols, we show that a certain topological obstruction (the Atiyah-Bott obstruction for complexes) decides whether or not the complex can be completed by “standard” boundary conditions to a Fredholm problem (standard means here conditions belonging to Boutet de Monvel's algebra for boundary value problems). In case the obstruction is violated, we show that one can always choose boundary conditions of generalized Atiyah-Patodi-Singer type (generalized spectral boundary conditions) to achieve a Fredholm problem.

Dienstag, 12.4.2016, 15:00h, Raum c311  
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)