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# Oberseminar Analysis und Theoretische Physik

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# Index theory on the Fock space

We will present an index theorem for Toeplitz operators on the Fock space. This has certain implications for quantum Hall effects in even-dimensional euclidean space. The quantum Hall conductance can be described in terms of indices for Toeplitz operators acting on the eigenspaces of the Landau hamiltonian which in a sense are higher excitations of the Fock space. Based on [arXiv:1003.2865](https://arxiv.org/abs/1003.2865).

**Dienstag, 12.04.2011, 15:15 Uhr, Raum g005  
Hauptgebäude der Leibniz Universität**

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