Oberseminar
Analysis und Theoretische Physik

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Can one hear
the shape of a triangle?

This talk is based on joint work with Zhiqin Lu. Many problems in spectral theory are motivated by the question: what geometric properties can be detected if one knows certain spectral information? In this talk, I will discuss the "fundamental gap" of simplicial domains in $\mathbb{R}^n$ in general, and the properties of the "gap function" on the moduli space of Euclidean triangles in particular. The fundamental gap is the difference between the first two Dirichlet eigenvalues of the Laplacian, and the gap function is this difference multiplied by the square of the diameter of the domain. It turns out that the gap function detects the equilateral triangle within the moduli space of Euclidean triangles.

Dienstag, 6.11.2012, 15:00 Uhr, Raum g005
Hauptgebäude der Leibniz Universität

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