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Leibniz  
Universität  
Hannover

Oberseminar Analysis und Theoretische Physik

**Dr. Medet Nursultanov**

University of Helsinki

**Narrow escape problem  
in the presence of the force field**

*Let us consider a Brownian particle confined to a bounded domain by a reflecting boundary, except for a small absorbing part which is thought of as a window, through which it can escape. The narrow escape problem deals with computing the mean sojourn time of the aforementioned Brownian particle in the domain. In our work we consider this problem in a three-dimensional Riemannian manifold under the influence of the force field. We compute an asymptotic expansion of mean sojourn time for Brownian particles, as window shrinking to the point. (This is joint work with William Trad and Leo Tzou)*

**Dienstag, 1.3.2022, 15:00 Uhr, Raum c311  
Hauptgebäude der Leibniz Universität**

*Dazu laden herzlich ein:*

*Prof. Dr. Wolfram Bauer, Prof. Dr. Joachim Escher, Prof. Dr. Johannes Lankeit,  
Prof. Dr. Elmar Schrohe, Prof. Dr. Christoph Walker*