

# Einladung

In der Reihe „Chemnitzer Mathematisches Colloquium“ der Fakultät für Mathematik der TU Chemnitz spricht

**Herr Dr. Joscha Diehl (z.Z. TU Chemnitz)**

über das Thema

**Invariants of the iterated-integral signature.**

Der Vortrag findet am

**Donnerstag, dem 6. Dezember 2018, um 16.00 Uhr im Raum B202,  
Reichenhainer Straße 70**

statt.

Ich möchte Sie hiermit recht herzlich zu dieser Veranstaltung einladen. Das Kolloquium wird von Herrn Prof. Dr. Jan-Frederik Pietschmann geleitet.

**Abstract:**

Recently the iterated-integral signature, known from stochastic analysis, has found applications in statistics and machine learning as a method for extracting features of time series. In many situations, there is a group acting on data that one wants to "mod out". One example is the accelerator data coming from a mobile phone. The orientation of the phone in a user's pocket is unknown. One then usually tries to calculate features that are invariant to the action of  $SO(3)$ . I describe how such invariant features can be found in the signature. This is joint work with Jeremy Reizenstein (University of Warwick).

Prof. Dr. Christoph Helmberg  
Dekan