



# Kolloquium über Reine Mathematik

Einladung zu einem Vortrag

**Dienstag, 19. Juni 2018**

17 Uhr s.t., Geom H4

**Prof. Dr. Sarah Scherotzke**

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## ***The Chern character and categorification***

### Abstract:

The Chern character is a central construction which appears in topology, representation theory and algebraic geometry. In algebraic topology it is for instance used to probe algebraic K-theory which is notoriously hard to compute, in representation theory it takes the form of classical character theory. Recently, Toen and Vezzosi suggested a construction, using derived algebraic geometry, which allows to unify the various Chern characters. We will categorify this Chern character. In the categorified picture algebraic K-theory is replaced by the category of non-commutative motives. It turns out that the categorified Chern character has many interesting applications. For instance we show that the DeRham realisation functor is of non-commutative origin.

**Vor dem Vortrag (ab 16.30 Uhr) stehen im Raum 327 Kaffee und Tee bereit.**