



## Kolloquium über Reine Mathematik

Einladung zu einem Vortrag

**Dienstag, 28. Juni 2016**

17 Uhr s.t., Geom H4

**Prof. Dr. Terry Gannon**

(University of Alberta, Edmonton und MPIM Bonn)

### ***The search for the exotic***

Abstract:

Conformal field theories and related structures have been studied since the 1980s, and we've learned a considerable amount about their fascinating theory. Nevertheless, our zoo of known examples is fairly bland. They all come from standard methods applied to standard examples. Is that because all conformal field theories are closely related to more classical structures like Lie algebras, which we understand quite well? Or is it because we are just too dumb to notice all the other conformal field theories lurking out there? Are there exotic conformal field theories, and if so, how many? My talk will address this. It is meant for a general mathematical audience – I won't assume familiarity with conformal field theories.

The relation between CFT and modular forms is old and deep. In my talk I'll explain how this relation can be used to help construct, or also eliminate, possible "exotic" new rational CFT.

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