



TECHNISCHE UNIVERSITÄT
CHEMNITZ

Fakultät für Mathematik
Chemnitzer Mathematisches Colloquium

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

Herr Prof. Fabrizio Catanese (Universität Bayreuth)

über das Thema

Configurations of lines and interesting algebraic surfaces.

Der Vortrag findet am

**Donnerstag, dem 3. November 2016, 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 JProf. Christian Lehn geleitet.

Abstract:

Many important questions in the theory of surfaces and in algebraic geometry have been solved thanks to explicit constructions of algebraic surfaces as abelian coverings branched over special configurations of lines. After recalling the classical configurations (Pappus, Desargues, Fano, Hesse) and some new ones, I shall describe simple equations for such surfaces, as the Fermat, and Hirzebruch-Kummer coverings. As the configuration of lines becomes special some interesting geometry shows up, as in the case of the six lines of a complete quadrangle, related to the Del Pezzo surface of degree 5 and its icosahedral symmetry. After mentioning many important such examples and applications, by several authors, I shall concentrate on a recent simple series of such surfaces, studied in my joint work with Ingrid Bauer and Michael Dettweiler, discussing new results and quite general open questions, concerning rigid manifolds, and projective classifying spaces.

Prof. Dr. Christoph Helmberg
Dekan



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