

UNIVERSITÄT DES SAARLANDES
Fakultät für Mathematik und Informatik
Fachrichtung Mathematik



Mathematisches Kolloquium

Am Freitag, dem 01. Februar 2019 spricht um 14 Uhr c. t. im Hörsaal IV
der Fachrichtung Mathematik (Gebäude E2 4)

Professor Dr. Cecília Salgado
UFRJ, Rio de Janeiro, zurzeit MPIM Bonn

über das Thema:

Arithmetic and geometry of algebraic surfaces: the place of elliptic fibrations and K3 surfaces

Abstract: In this talk I will go over recent progress on the arithmetic of algebraic surfaces, review some contributions of the study of elliptic fibrations to it and present open problems summarising the state of the art. K3 surfaces have a special place in the classification of algebraic surfaces: they lie in an intermediate spot, being not too simple (as rational surfaces) nor too complicated (as surfaces of general type). They are ubiquitous in mathematics, having been studied by differential and algebraic geometers, dynamicists, arithmeticians, analysts and also by physicists. A special feature of K3 surfaces is that they are the only class of surfaces that might admit more than one elliptic fibration, with section, that is not of product type. The classification of such different fibrations has been the object of several papers since the 90's. I plan to outline a new approach to this problem and, if time allows, discuss arithmetic and geometric applications of the method.

Der Gast wird von Professor Dr. Gabriela Weitze-Schmithüsen betreut.

Alle Interessenten sind zum Vortrag herzlich eingeladen.

Kaffee und Tee ab 13.45 Uhr im Konferenzraum der Mathematik (Erdgeschoss, Raum 1.03)

Die Dozenten der Mathematik