
BERN-FRIBOURG GRADUATE SEMINAR

a seminar for Master and PhD students

Thursday 27th October, 2022: **17:30 - 18:15**

Room B5, Exakte Wissenschaften, Bern

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Smooth complex rational affine surface with uncountably many real forms

Abstract

Base change from \mathbb{R} to \mathbb{C} can lead to previously nonisomorphic real varieties being isomorphic over \mathbb{C} ; such real varieties are called *real forms* of the complex variety they are isomorphic to. The situation for curves is clear: all complex curves have at most finitely many real forms. Yet, once we pass to dimension 2 or higher, infinitely many may occur, as results from the last few years of for example Lesieutre or Dinh, Oguiso and Yu have shown. In this talk, I will explain some of the background on real forms, and give the first example of a smooth complex rational affine surface with uncountably many pairwise nonisomorphic real forms.