"If algebraic curves are God's creation, then algebraic surfaces are the Devil's mischief." - Federigo Enriques

The Trivial Notions Seminar
Proudly Announces

Algebraic surfaces: from Enriques to Mori

A talk by
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Abstract

Geometry of algebraic surfaces is a classical and beautiful theory. It was developed first by the great Italian geometers. The culmination of their efforts was the Enriques classification of complex projective surfaces. In this talk we outline a possible approach to this classification.

Surfaces can be divided into classes according to their Kodaira dimension. Surfaces of negative Kodaira dimension are rational or ruled. Starting points of the classification are theorems of Castelnuovo and Enriques characterizing rational and ruled surfaces, respectively, by their numerical invariants. A surface of nonnegative Kodaira dimension possesses a unique birational minimal model. Those of Kodaira dimension zero are K3, Enriques, Abelian and bielliptic surfaces. Surfaces of positive Kodaira dimension are harder to classify and we only discuss isolated results pertaining to surfaces of general type. If time allows, the extremal ray theory approach to classification is presented.

Friday, October 6$^{\text{th}}$, 2006 at 2:00 pm
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