

N16
COLLOQUIUM

Arithmetic of del Pezzo surfaces of degree 1

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Abstract: I will discuss some of the driving questions in the area of Rational points on algebraic varieties (these can be thought of as solutions over fields of number-theoretic interest to systems of homogeneous polynomial equations). I will focus on the case of smooth rational surfaces, and discuss some results concerning the arithmetic of del Pezzo surfaces of degree 1. I will also explain how these results complete a qualitative picture of basic arithmetic phenomena among smooth rational surfaces. Along the way I will go over concepts like weak approximation and the computation of Brauer-Manin obstructions; I will not assume previous knowledge of them.

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Mathematics and Science Center: W306

MATHEMATICS AND COMPUTER SCIENCE
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