

# Harvard-M.I.T. Algebraic Geometry Seminar

## THE SEVERI PROBLEM FOR RATIONAL CURVES ON DEL PEZZO SURFACES

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Let  $X$  be a smooth projective surface and choose a curve  $C$  on  $X$ . Let  $V_C$  be the set of all irreducible divisors on  $X$  linearly equivalent to  $C$  whose normalization is a rational curve. The Severi problem for rational curves on  $X$  with divisor class  $[C]$  consists of studying the irreducibility of the spaces  $V_C$  as  $C$  varies among all curves on  $X$ .

In this talk, we will prove that all the spaces  $V_C$  are irreducible in the case where  $X$  is a del Pezzo surface, with a unique exception.

Tuesday, February 8th, 2005

3:00 p.m.

Harvard Rm 507

<http://www-math.mit.edu/ags/>