## Queen's Algebraic Geometry — Seminar —

## PUNCTUAL TRANSFORMATIONS OF THE PROJECTIVE SPACE AND THEIR FACTORIZATION

## ANTONIO LAFACE Queen's University

## Abstract

After introducing the notions of "Punctual transformation" and "Elementary transformation" of the projective space, I will show that the seconds are a subset of the firsts. The Noether factorization theorem, for birational maps of the plane, can be rephrased by saying that any punctual transformation of the projective plane is a composition of elementary transformations. I will show that, under certain hypothesis, this theorem can be generalized to the three dimensional case.

> Monday, September 25, 2006 4:30pm – 5:30pm 115 Jeffery Hall