

1023-13-1020 **Mike Stillman, Damiano Testa** and **Mauricio Velasco***, 310 Malott Hall, Cornell University, Ithaca, NY. *The homogeneous coordinate rings of some Del Pezzo surfaces.*

In this talk we will describe the homogeneous coordinate rings (Cox rings) of the surfaces obtained by blowing up \mathbb{P}^2 at 4, 5 or 6 general points.

We prove a conjecture of Batyrev and Popov which yields a presentation of these rings as a quotient of a polynomial ring by an ideal generated by quadrics.

Finally we will present some links between the Grobner deformations of these ideals and the geometry of the configurations of lines on the surfaces. (Received September 24, 2006)