1007-16-206 **Pavel Etingof** and **Alexei Oblomkov*** (oblomkov@math.mit.edu), 2-092, 77 Massachusetts Ave., Cambridge, MA 02139, and **Eric Rains**. *Generalized double affine Hecke algebras of rank 1 and quantized Del Pezzo surfaces.*

To star-shaped simply laced affine Dynkin diagram D one can use a standard procedure to attach a crystallographic group G. We define a flat deformation $H(t,q)$ of the group algebra $\mathbb{C}[G]$. If $D = D_4$, then $H(t,q)$ is the double affine Hecke algebra of rank 1. We prove that $H(t,q)$ is the universal deformation of the twisted group algebra of G, and that this deformation is compatible with certain filtrations on $C[G]$. If q is a root of unity, then for generic t the algebra $H(t,q)$ is an Azumaya algebra, and its center is the function algebra on an affine del Pezzo surface. For generic q, the spherical subalgebra $eH(t,q)e$ provides a quantization of such surfaces. Talk is based on the joint paper with P. Etingof and E.Rains. (Received February 21, 2005)