1095-53-32Denis Auroux* (auroux@math.berkeley.edu), Department of Mathematics, University of
California, 970 Evans Hall # 3840, Berkeley, CA 94720-3840. Mirror symmetry for some affine
hypersurfaces. Preliminary report.

We will discuss formulations of mirror symmetry for a hypersurface H in $(\mathbb{C}^*)^n$ from two different viewpoints: the Strominger-Yau-Zaslow (SYZ) conjecture on one hand, and homological mirror symmetry on the other. To make things concrete, we will illustrate all the statements on a simple example: the pair of pants, viewed as a hypersurface in $(\mathbb{C}^*)^2$.

From the SYZ perspective, in recent work with M. Abouzaid and L. Katzarkov we have studied the enumerative geometry of Lagrangian tori in blowups of $(\mathbb{C}^*)^n \times \mathbb{C}$ along $H \times 0$ to derive a construction of a Landau-Ginzburg model that can be viewed as a mirror to H.

From the homological mirror symmetry perspective, in the case where n = 2 and H has genus 0, joint work with Abouzaid, Efimov, Katzarkov and Orlov shows that the wrapped Fukaya category of H is equivalent to the derived category of singularities of this mirror; these results are being extended by H. Lee to other Riemann surfaces. Finally, joint work in progress with Abouzaid relates the derived category of coherent sheaves of H to a certain Fukaya category of the mirror. (Received August 19, 2013)