**Meeting:** 1007, Santa Barbara, California, SS 8A, Special Session on Geometry and Physics

1007-53-74 **Wei-Dong Ruan*** (ruan@math.uic.edu), Department of Mathematics, University of Illinois at Chicago, Chicago, IL 60607. *Homological mirror symmetry for weighted projective spaces through constructible sheaves.*

In 1994, Konsevich proposed the homological mirror symmetry conjecture for Fano varieties and Calabi-Yau manifolds that predicts the equivalence of the derived category of coherent sheaves on the manifold and the Fukaya category for the mirror. In this talk, we will consider the case of weighted projective space for all dimensions (previously only proved for dimension=2). We will prove the homological mirror symmetry in this case through the category of constructible sheaves on the complex side and the Fukaya-Oh Morse category on the symplectic side. (Received February 02, 2005)