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Huijun Fan and **Tyler Jarvis*** (jarvis@math.byu.edu), Brigham Young University, Dept of Math, Provo, UT 84602-6521, and **Yongbin Ruan**. *Integrable Hierarchies and Mirror Symmetry for Quasi-homogeneous Singularities*.

I will describe mirror symmetry results connecting Frobenius algebras arising from certain quasi-homogeneous singularities. In some cases the mirror symmetry extends to the level of Frobenius manifolds. For special groups G of automorphisms, we can also construct G -Frobenius algebras associated to these singularities. The mirror symmetry is present at the level of G -Frobenius algebras, and taking G -invariants yields the mirror symmetry among the original Frobenius algebras.

Furthermore, in several cases one may construct an integrable hierarchy associated to these singularities. I will discuss relations between the potential functions arising from the singularities and solutions of the integrable hierarchy. In the special case of the A_n singularity, these results correspond to the theory of higher spin curves. (Received August 12, 2006)