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**Ursula Anne Witcher\*** ([ursula@math.hmc.edu](mailto:ursula@math.hmc.edu)), Harvey Mudd College, Dept. of Mathematics, 301 Platt Boulevard, Claremont, CA 91711. *K3 surfaces with discrete symmetry groups.*

Discrete symmetries have been used to investigate the local structure of moduli spaces of mirror families of Calabi-Yau varieties. For the two-dimensional Calabi-Yau varieties known as K3 surfaces, discrete symmetries provide a valuable tool for understanding moduli and Picard group structure. We use specific examples of K3 surfaces which admit discrete group actions to explore the implications of mirror symmetry. (Received August 14, 2009)