DUPIN HYPERSURFACES WITH CONSTANT MÖBIUS CURVATURES

JIE QING

UNIVERSITY OF CALIFORNIA AT SANTA CRUZ

ABSTRACT. In this talk I will talk about the joint research on Dupin hypersurfaces and Möbius invariants with Tongzhu Li and Changping Wang. I will sketch the proof of the result that a Dupin hypersurface with constant Möbius curvatures is M—'obius equivalent to either an isoparametric hypersurface in the sphere or a cone over an isoparametric hypersurface in a sphere. The Möbius curvatures are defined for a Dupin hypersurface with more than 2 distinct principal curvatures.