Title: Calibrated Geometries

Sema Salur
University of Rochester
Department of Mathematics
Rochester, NY 14627
U.S.A.

Abstract: Calibrated submanifolds are distinguished classes of minimal submanifolds and their moduli spaces are expected to play an important role in geometry, low dimensional topology and theoretical physics. Examples of these submanifolds are special Lagrangian 3-folds for Calabi-Yau, associative 3-folds and coassociative 4-folds for G_2, and Cayley 4-folds for Spin(7) manifolds.

In this **talk**, I will first give brief introductions to Calabi-Yau and G_2 manifolds, and then a survey of my recent research on relations between calibrated geometries and the mirror dualities of Calabi-Yau manifolds.