SHIH-KAI CHIU, Vanderbilt University
Special Lagrangian spheres in adiabatic limits

In a seminal paper, Harvey and Lawson defined special Lagrangians as certain calibrated submanifolds in Calabi-Yau manifolds. Special Lagrangians have since played a significant role in mirror symmetry, including the SYZ conjecture and stability conditions in Fukaya categories. In this talk, we will discuss the construction of special Lagrangian 3-spheres in a collapsing Calabi-Yau 3-fold that admits a K3 fibration. As the ambient manifold collapses to the base, these special Lagrangians themselves collapse into geodesic segments within the base. This is joint work with Yu-Shen Lin.