

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

Colloquium

NON-KÄHLER TRANSITIONS OF CALABI-YAU THREEFOLDS

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ABSTRACT:

It was proposed in the works of Clemens, Reid and Friedman to connect Calabi-Yau threefolds with different topologies by a process which degenerates 2-cycles and introduces new 3-cycles. This operation may produce a non-Kähler complex manifold with trivial canonical bundle. In this talk, we will describe the Fu-Li-Yau geometrization of this process, and discuss joint work with T.C. Collins and S.-T. Yau on the stability of the tangent bundle.

> 4 – 5pm, Wednesday, Nov 2, 2022 virtual meeting on Zoom Zoom link available upon request