Geometry/Analysis Seminar

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An application of period integrals of hypersurfaces

Abstract: I will discuss a new way to compute zero locus of certain differential polynomials of period integrals of families of algebraic varieties, including Calabi-Yau and general type hypersurfaces in a G-space. These zero locus generalizes zeros of classical hypergeometric functions in one variable. The method is based on a new algebraic description of Picard-Fuchs systems for the period integrals, including certain generalized hypergeometric functions. The talk is based on joint work with J. Chen, A. Huang, S.-T. Yau, and X. Zhu.

Thursday, October 8
4:30 pm
Mathematics 507