TEMPLE UNIVERSITY MATHEMATICS COLLOQUIUM

Dror Varolin

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will speak on

Complex analytic methods in the study of algebraic functions

ABSTRACT: Recently there has been a lot of interaction between the fields of Several Complex Variables (especially its aspects that concern L^2 methods) and Algebraic Geometry. We discuss some long standing problems that have recently been solved. One concerns the positivity of so-called Hermitian polynomials and another is the celebrated deformation invariance of plurigenera. The notions of Hermitian functions and of plurigenera will be defined in the talk. The solutions of these problems are related to a classical object in several complex variables called the Bergman kernel– the integral kernel of the projection operator from L^2 to the Bergman space of holomorphic L^2 functions). We will try to give a brief indication of this, at least in one of the problems.

MONDAY, FEBRUARY 13, 2006
LECTURE AT 4:00 PM ($\sharp$)
COFFEE, TEA, AND REFRESHMENTS FROM 3-5 PM
ROOM 617, WACHMAN BUILDING
DEPARTMENT OF MATHEMATICS