

Colloquium

**Jay Jorgenson**

*CUNY*

**Problems in Analysis**

**Motivated by**

**Arakelov Theory**

*Abstract: Arakelov theory has developed into an independent, fundamental discipline within algebraic geometry and arithmetic geometry which involves fascinating aspects of number theory as well as certain components of analysis, such as spectral invariants, automorphic forms, and heat kernel analysis. I will discuss results obtained in collaboration with Jurg Kramer (Humboldt University, Berlin) in which we investigate specific problems which can be viewed as questions in analysis, but, from our point of view, arise from issues in Arakelov theory. As time permits, I will present our results concerning integrals of star products of Green's currents, asymptotic bounds for special values of Selberg's zeta function, as well as our more recent work.*

**Wednesday, January 21**

**4:00 pm**

**204 Smith Hall**