## The University of Chicago ALGEBRAIC GEOMETRY SEMINAR

Wednesday, May  $6^{th}$ , 2015 4:30 – 6:00 pm, Eckhart 312

Jesse Kass (University of South Carolina)

## How to make Poincaré Duality into a regular morphism

Poincaré Duality of a smooth complex curve — the duality isomorphism that describes how cycles intersect — can be realized by a holomorphic map between complex manifolds called the Abel map. Starting with the definition of the Abel map, I review this result and then explain how it extends to singular curves. In doing so, I describe the compactified Jacobian of a curve with ordinary n-fold singularities and, if time permits, discuss some connections with Dima Arinkin's work on autoduality. This work is joint with Kirsten Wickelgren.