

**The University of Chicago**  
**ALGEBRAIC GEOMETRY SEMINAR**

Wednesday, May 6<sup>th</sup>, 2015  
4:30 – 6:00 pm, Eckhart 312

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**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.