# *Department of Mathematics*
## *University of Notre Dame*

Jeff Diller - University of Notre Dame

# *FELIX KLEIN SEMINAR*

**Speaker: Jeff Diller**
**University of Notre Dame**

***Date:*** Thursday, September 5, 2019
***Time:*** 2:00 PM
***Location:*** 258 Hurley Hall

## *Lecture Title:*
## A transcendental first dynamical degree

***Abstract***

Any plane rational self-map $f : P^2 - > P^2$ has an 'algebraic degree' defined to be the common degrees of its components in homogeneous coordinates. The sequence $(degf^n)$ always grows like a power $lambda^n$ of some number $lambda >= 1$, the 'dynamical degree' of $f$, which is a fundamental invariant for the dynamics of $f$. The dynamical degree is typically equal to the degree of $f$, and there are only countably many possibilities for its value in general. Nevertheless, I will describe a specific example in which the first dynamical degree turns out to be (provably) a transcendental number.