



Speaker: Julius Ross
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Thursday, September 27, 2018

2:00 PM

258 Hurley Hall

Title: Dualities between Complex PDEs and Planar Flows

Abstract:

I will describe a surprising duality between a case of the Dirichlet problem for the Complex Homogeneous Monge-Ampere Equation and a planar flow coming from fluid mechanics called the Hele-Shaw flow. Using this we are able to prove new things about both this PDE and renowned flow. I will present this in a way that suggests that it is a special case of something much more general, and end with a discussion as to what this may be. All of this is work with David Witt-Nystrom.