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**Speaker:** Dylan Rupel  
University of Notre Dame

Monday, February 22, 2016

2:00 PM

258 Hurley Hall

**Title:** Introduction to Scattering Diagrams

**Abstract:**

This is the first in a series of lectures (by multiple speakers) aimed at understanding the recent paper of Gross, Hacking, Keel, and Kontsevich which introduces methods of mirror symmetry into the cluster algebra machinery. At the heart of the paper is the notion of a scattering diagram (or a wall-crossing structure), which has led to the proof of many long standing conjectures on cluster algebras, including the construction of canonical bases (the theta basis) with remarkable positivity properties. In this talk I will introduce scattering diagrams in general and then exhibit several examples in rank 2 together with calculations of theta basis elements.