

# 20TH ANNUAL MIDWEST PHILMATH WORKSHOP

NOVEMBER 9-10, 2019  
129 DEBARTOLO HALL

## SATURDAY, NOVEMBER 9

### *Session 1:*

- 9:00 am Doug Marshall (Carleton College)  
“Impurity of Methods in Finite Geometry”
- 10:10 am Daniel Sutherland (University of Illinois at Chicago)  
“Euclid and Kant: From Mereology to Mathematics”
- 11:20 am Patricia Marino (University of Waterloo)  
“On the Use of Mathematics in Economics: Formalism,  
Fit, and Physics”

12:30 pm Lunch

### *Session 2:*

- 2:00 pm Marc Lange (UNC Chapel Hill)  
“Inference to the Best Explanation as a Form of Non-  
Deductive Reasoning in Mathematics”
- 3:10 pm William D’Alessandro (U of Illinois at Chicago)  
“Proving Quadratic Reciprocity: Explanation,  
Disagreement, Transparency and Depth”
- 4:20 pm Patrick Ryan (UC Berkeley)  
“Szemerédi’s Theorem: An Exploration of Mathematical  
Content and Explanation”
- 5:30-6:30 pm Ellen Lehet (University of Notre Dame)  
“The Explanatory Value of Category Theory”

6:45 pm Reception

7:15 pm Dinner

## SUNDAY, NOVEMBER 10

### *Session 3:*

- 9:00 am John Baldwin (University of Illinois Chicago)  
“The Reasonable Effectiveness of Model Theory in Mathematics”
- 10:10 am Bernd Buldt (Purdue University, Fort Wayne)  
“Gödel – Husserl – Platonism”
- 11:20 am Rebecca Morris (Stanford University)  
“Intellectual Generosity and Diversity in Mathematics”

*Adjournment: 12:30pm*