WPI DEPARTMENT OF MATHEMATICAL SCIENCES

Week of November 5-9, 2018

Denksport

Padraig Ó Catháin
WPI

Discussion of the William Putnam Mathematical Competition

Monday, November 5, 2018
4:00PM-5:50PM
Stratton Hall 308

AWM at WPI

Sarah Spence Adams
Olin College of Engineering

Title: A Discussion and Mini-Workshop on Charting Your Professional Career

ABSTRACT: In this interactive session, Sarah will start by describing her own career path and give some general career advice. Attendees will then have a chance to engage in a scaffolded exercise designed to help participants chart their own professional careers. We will conclude with a discussion of topics of interest to the participants, possibly including work-family balance, the academic job search process, or cultivating research collaborators.

Join for lunch and good conversation!

Tuesday, November 6, 2018
12:00PM - 1:30PM
Stratton Hall 306

Discrete Math Seminar

Sheila Sundaram
Pierrepont School, Westport CT

Title: On conjugacy classes of S_n containing all irreducibles

ABSTRACT: The action of S_n on itself by conjugation is a permutation representation whose orbits are the conjugacy classes. It is known that this action contains all the irreducible S_n-modules; several proofs of this fact appear in the literature. Here we establish the fact that there are single classes which contain all the irreducibles, and give a simple characterisation of the orbits containing ALL the irreducibles of S_n. The precise result is the following:

If $n \neq 4,8$, the conjugacy class indexed by the integer partition λ of n contains all S_n-irreducibles if and only if λ has all parts distinct and odd, and has at least two parts.

Tuesday, November 6, 2018
3:00PM - 3:50PM
Stratton Hall 203

Joint BCB & Statistics Seminar

Yunlong Liu
IUPUI

Thursday, November 8, 2018
12:00PM-1:00PM
Salisbury Labs 402

Analysis and PDE Seminar

Li Chen
UConn

Title: Sobolev inequalities on Besov class associated with Dirichlet spaces

ABSTRACT: In this talk, I will introduce the Besov classes defined via heat semigroup on general Dirichlet spaces and their basic properties. I will then discuss several Sobolev and isoperimetric inequalities with sharp exponents in this general framework.

This is a joint work with P. Alonso-Ruiz, F. Baudoin, L. Rogers, N. Shanmugalingam and A. Teplyaev.

Thursday, November 8, 2018
12:00PM-1:00PM
Salisbury Labs 104