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series
for Everyone

Math for Everyone
talks and discussions especially for undergrads

MARK WARD
Purdue University

An Invitation to Analytic Combinatorics

Everyone, from Fields medalists to math phobes, is welcome to attend.
Thursday, April 19, 5p.m.
Hayes-Healy 127
Ends with refreshments

We survey some of the ways that symbolic methods can be used for counting the number of large objects of various types, or for finding probabilistic properties of large randomly generated objects. Examples include integer compositions and partitions, set partitions, permutations, sequences, trees, words, etc. We discuss the basics of probabilistic and combinatorial techniques for the analysis of algorithms and data structures. All of the discussion will be given from a very elementary level.

Anybody who understands Taylor's series will be able to comprehend the discussion. The talk can be viewed as an invitation to learn about the methods of Analytic Combinatorics, as in Philippe Flajolet and Robert Sedgewick's 2009 book.



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