

Oral Exam Syllabus

Helen Jenne

Books

- B. Sagan, *The Symmetric Group: representations, combinatorial algorithms, and symmetric functions*, Springer, 2001.
Chapters 1-4

Papers

- G. Carroll and D. Speyer; *The cube recurrence*, Electronic Journal of Combinatorics 11 (2004), no. 1.
- R. Kenyon and D. Wilson; *Boundary partitions in trees and dimers*, Transactions of the American Mathematical Society 363 (2011), no. 3, 1325-1364.
- R. Kenyon and D. Wilson; *Combinatorics of tripartite boundary connections for trees and dimers*, Electronic Journal of Combinatorics 16 (2009), no. 1.
- G. Kuperberg; *Symmetries of plane partitions and the permanent-determinant method*, Journal of Combinatorial Theory, Series A, 68 (1994), no. 1, 115-151.
Section 2: The permanent-determinant method
- E. Kuo; *Applications of graphical condensation for enumerating matchings and tilings*, Theoretical Computer Science 319 (2004), no. 1-3, 29-57.

Courses

- Math 607 *Symmetric Functions*, Young, Spring 2017.
Vertex operators, symmetric functions