

The Oral Examination in Combinatorics

January 27, 2004

If the student's major area is combinatorics then the examination will consist of Module #1 below, plus one of the remaining modules. If the minor area is combinatorics then the subject matter will be Module #1.

- Module 1 (enumerative):
Wilf "generatingfunctionology": Chapters 1,2,3,5.
Stanley "Enumerative Combinatorics", vol. 1: Chapters 1 and 2 and sections 3.1-3.8.
- Module 2 (algebraic):
Stanley "Enumerative Combinatorics", vol. 2: sections 7.1-7.17
Knuth "The Art of Computer programming", vol. 3: section 5.1.4
Macdonald "Symmetric Functions and Hall Polynomials": sections 1.6, 1.9
- Module 3 (algorithmic):
Wilf "Algorithms and Complexity"
- Module 4 (probabilistic):
Alon-Spencer-Erdős, "The Probabilistic Method."