Advanced Combinatorics and Graph Theory: Spring 2013

Approximate Schedule

Note: This schedule is very approximate, and none of this is set in stone. While we will probably cover all of the topics listed below, the pace at which we do them almost certainly will not stick to the schedule below. However, you should be able to get some idea of what we’re doing from the following schedule.

Week 1: Catalan numbers
Week 2: Burnside’s theorem and Polya enumeration
Week 3: Burnside’s theorem and Polya enumeration
Week 4: Moon and Moser’s result on triangulating an $n$-gon.
Week 5: Generalizing Catalan numbers
Week 6: Introduction to partitions
Week 7: Representations of the symmetric group
Week 8: Characteristic $p$ partition theory
Week 9: Characteristic $p$ partition theory
Week 10: An advanced topic in combinatorics, to be determined.
Week 11: Graphs: trees and searching
Week 12: Graphs: trees and searching
Week 13: Graphs: network algorithms
Week 14: Graphs: network algorithms
Week 15: An advanced topic in graph theory, to be determined.