**Talks Math 450/650**

1. Chinese Remainder Theorem
2. Recurrence relations and characteristic polynomials (Th 7.2.1)
3. Recurrence relations and generating functions (Th 7.5.1)
4. A problem on 2*n* terms sequences (Catalan numbers; Th 8.1.1)
5. Two other occurrences of Catalan numbers
6. Recurrence for Catalan numbers
7. Triangulations of a polygon (Catalan numbers again)
8. (not available) Generating function for Catalan numbers
9. Multiplication schemes (yet another occurrence of Catalan numbers)
10. Pattern avoiding permutations
11. A string counting problem
12. Iterations
13. Method of Invariants
14. Method of Valuations
15. Wilson’s Design Construction – Brett Kelly