

MSCS RESEARCH SEMINAR
FRIDAY, MARCH 3
3:30 PM, RNS 204

***Fibonacci Numbers,
Catalan Numbers and
the Super FiboCatalan
Numbers***

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If you are a math major, then you have probably heard of the most famous sequence of numbers, the Fibonacci numbers. If you have taken Combinatorics, you have probably heard of the second most famous sequence of numbers, the Catalan numbers. If you are a Combinatorics professor, you may have heard of the FiboCatalan numbers, but in this talk I will define the super Catalan numbers $S(m,n)$ and the super FiboCatalan numbers and explain how they tie all of these famous sequences together in a generalized format. The super Catalan numbers are known to be integers, but only have a nice combinatorial interpretation for $m=2$ and $m=3$. I will prove that the super FiboCatalan numbers are integers for $m=1$ and $m=2$ and present a number of open conjectures and problems related to these numbers.

