

*Department of Mathematics,
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Food for Thought Seminar

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Combinatorics and Power Series

Abstract:

In this talk I will explain why thinking about formal power series is useful, and what they can do for you. I will tell how to write down the coefficients of formal power series that take the form of exponential generating functions $E_g(E_{f_1}(x), \dots, E_{f_q}(x))$, using partitions. I will use those results with the added structure provided by thinking about my formal power series as Taylor series of functions to provide a formula for the derivatives of composite functions that look like $g(f_1(x), \dots, f_q(x))$. This talk will be accessible to all graduate students (first years included!) and no prior knowledge of combinatorics is required.

Thursday, January 10, 2008

11:00 AM

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