**Berlin Mathematical School**

## BMS Kovalevskaya Colloquium

Friday, 6 November 2009, 2:00 pm

*Tea before the lecture starts at 1 pm*

BMS Loft, Urania
An der Urania 17, 10787 Berlin



*"A generating function is a clothesline on which we hang up a sequence of numbers for display."* **H. S. Wilf**

### Ragni Piene (Oslo):

### "Counting curves: the hunting of generating functions"

Generating functions are a main ingredient in enumerative combinatorics. In enumerative algebraic geometry, however, they were only introduced around 1990, when physicists surprisingly were able to predict the generating function of rational curves on Calabi-Yau threefolds by using the principle of mirror symmetry. Since then, the hunting for generating functions for other curve counting problems has intensified. Ragni Piene will explain some successes and some failures in this hunt, with particular focus on curves on surfaces.

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