



## SFB Seminartag

### ZEIT:

13.11.2007, 16:00 Uhr - 19:00 Uhr

### ORT:

HU-Berlin  
Invalidenstraße 42  
Nordbau, Hörsaal 8  
10115 Berlin

### PROGRAMM:

16:00 - 17:00 **Prof. Gavril Farkas**

#### **The enumerative geometry of the moduli space of curves**

The moduli space  $M_g$  of Riemann surfaces of genus  $g$  is a central object in mathematics. In the last two decades we have witnessed major advances in understanding its geometry using ideas from algebraic geometry, topology and physics. I will discuss problems related to the cohomology of  $M_g$  (Witten's conjecture on intersection numbers inspired by two dimensional gravity, Faber's conjecture on the tautological ring of the moduli space) as well as a few question concerning the global nature of  $M_g$  as an algebraic variety.

17:00 - 17:30 Kaffeepause

17:30 - 18:30 **Dr. Harald Dorn**

#### **Conformal anomalies and double trace deformations in AdS/CFT**

We start with a sketch of some basic facts concerning conformal anomalies in quantum field theories as well as their holographic description

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within  
the AdS/CFT correspondence. The second part of the talk will  
describe own  
work on the next leading large  $N$  contribution to the anomaly in  
conformal  
theories at the two endpoints of a renormalization group flow  
triggered  
by a double trace deformation. We show the exact equality between  
the  
dimensionally regularized partition functions involved on both sides of  
the correspondence.

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