



# Berlin Mathematical School

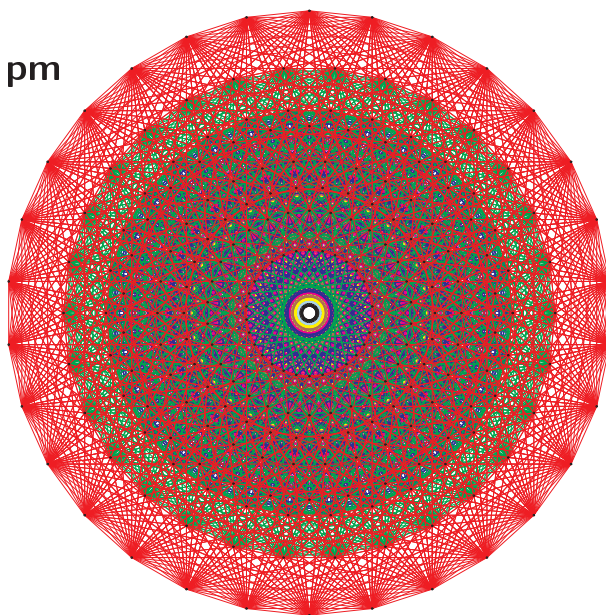
## BMS Fridays Colloquium

Friday, December 14, 2007, 2:00 pm

*Tea before the lecture starts at 1 pm*

BMS Loft, **Urania**

An der Urania 17, 10787 Berlin



Ilka Agricola (HU Berlin):  
“The  $E_8$  challenge”

Of all exceptional Lie groups,  $E_8$  (of dimension 248) is the most intriguing — and the least tractable. Its importance stems from its appearance in many different, quite surprising contexts, ranging from number theory to quantum gravity.

In March 2007, an international team of mathematicians announced that they had completed a computation of the so-called Kazhdan–Lusztig–Vogan polynomials for  $E_8$ , with astonishing resonance in the media.

Ilka Agricola, an outstanding Berlin differential geometer, is the head of a Junior Research Group “Special Geometries in Mathematical Physics” sponsored by the Volkswagen Foundation. In her lecture, she will give us an introduction into the group  $E_8$  itself and outline the meaning of the result.

<http://www.math-berlin.de>