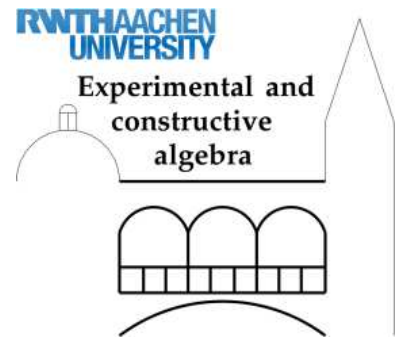


Graduiertenkolleg

Experimentelle und konstruktive Algebra



Vortrag

Mittwoch, 4. Mai 2011, 14:00 Uhr, Hörsaal Fo 6

FRANK SOTTILE (Texas A&M University, USA): *The Real, Complete Story of Conics*

In 1848 Steiner asserted that, given 5 general conics in the plane (ellipses, hyperbolae, or parabolae), there are exactly $7776 = 6^5$ other conics tangent to the given 5. He was unfortunately wrong and the correct answer of $3264 = 2^5 \cdot 102$ was given by Chasles in 1864. More recently, Fulton, and Ronga, Tognoli, and Vust have separately shown it is possible to choose 5 real conics so that each of the 3264 tangent conics are also real.

While this talk will explain the obvious numerological questions (where do 7776 and 3264 come from?), my goal is to convince you that 3264 is the correct number. This explanation will also show why this works over the real numbers.

For more information and some pictures:

<http://www.math.tamu.edu/~sottile/research/stories/3264/index.html>

Wir laden alle Interessierten herzlich ein.