

Institut für Geometrie

**Vortrag**

6.5.2010, 15 Uhr

Seminarraum 2, Inst. f. Geometrie, Kopernikusgasse 24

## **Generalized Rose-surfaces**

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Following earlier work, we introduce new constructions of rose surfaces based on normal curve congruences of circles. We derive parametric equations (which enable their visualization in *Mathematica*) and investigate some of their properties. In particular we derive a family of algebraic surfaces of order  $3n$  passing through the absolute conic, which include parabolic cyclides and Dupin's cyclides. Many examples of rose surfaces exhibit attractive shapes, a small number of high singularities.

[1] S. Gorjan: Special Rose Surfaces, in: The Wolfram Demonstrations Project,  
<http://demonstrations.wolfram.com/SpecialRoseSurfaces>

O. Röschel