Seminar

Universität
Konstanz

Di 23.11.21
13:30 Uhr
Zoom
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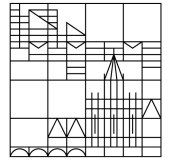
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3264 Conics in a Second

Enumerative algebraic geometry counts the solutions to certain geometric constraints. Numerical algebraic geometry determines these solutions for any given instance. In this talk I want to illustrate how these two fields complement each other. The focus lies on the 3264 conics that are tangent to five given conics in the plane. I will present a web interface for computing them. It uses the software HomotopyContinuation.jl, which makes this process fast and reliable. I discuss an instance where all 3264 solutions are real. Along the way we will learn some of the features of the software. This is a joint work with B. Sturmfels and S. Timme.