The Central Curve in Linear Programming

Third Kemeny Lecture

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007 Kemeny Hall, 4:00 pm
(Tea 3:30 pm 300 Kemeny Hall)

Abstract

The central curve of a linear program is the algebraic curve along which the interior point algorithms travel. We determine the degree, genus and defining ideal of this curve. These invariants, as well as the total curvature of the curve, are expressed in the combinatorial language of matroid theory. This is joint work with Jesus De Loera and Cynthia Vinzant.

This talk will be accessible to graduate students