Otto-von-Guericke-Universität Magdeburg
Fakultät für Mathematik

Auf Einladung des Institutes für Algebra und Geometrie spricht

Frau Giulia Codenotti

(Freie Universität Berlin)

über das Thema

Hollow polytopes of large width

Ort: Otto-von-Guericke-Universität Magdeburg, Gebäude 02, Raum 20

Zeit: Dienstag, 9. April 2019, 13.00 Uhr

Zu diesem Vortrag laden wir alle Interessierten herzlich ein.

Prof. Dr. Benjamin Nill

Abstract: The goal of this talk is to present the construction of hollow lattice polytopes of width larger than their dimension. After defining lattice polytopes and their relevant properties, such as width and hollowness, we will show how taking a direct sum of certain polytopes yields a hollow lattice polytope (resp. a hollow lattice simplex) of dimension 14 (resp. 404) and of width 15 (resp. 408). They are the first known hollow lattice polytopes of width larger than dimension. Asymptotic results which can be obtained with this method will also be presented.