Otto-von-Guericke-Universität Magdeburg
Fakultät für Mathematik

Auf Einladung des Institutes für Algebra und Geometrie spricht

Frau Marie-Charlotte Brandenburg

(Freie Universität Berlin)

über das Thema

Competitive Equilibrium and Lattice Polytopes

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

Zeit: Dienstag, 29. Oktober 2019, 13.00 Uhr

Zu diesem Vortrag laden wir alle Interessierten herzlich ein.

Prof. Dr. Benjamin Nill

Abstract: Competitive equilibrium is a concept coming from economics that concerns an envy-free allocation of goods, i. e. how to split items in a way so that everybody is happy with the share of items they get and the price they pay for it. In 2016, Candogan, Ozdaglar and Parillo introduced a mathematical model for this problem, associating to it an underlying graph which models pairwise relations between the different goods. We will discuss this model and how the existence of a competitive equilibrium can be expressed as a property of a specific polytope, which can be constructed from the underlying value graph. Further, we consider the special case of the complete graph.