Oberseminar Kombinatorik
Georg Loho, Twente, “Generalized permutahedra and complete classes of valuated matroids”
Abstract: Generalized permutahedra form an important class of polytopes occurring explicitly or implicitly in several branches of mathematics and beyond. I start with an overview of concepts related with generalized permutahedra from optimization and Discrete Convex Analysis. Valuated generalized matroids give rise to a particularly interesting subclass. I show some fundamental constructions for these objects. This leads to an answer to two open questions from auction theory and discrete convex analysis.