



## Minisymposium 18 - Hypergraphen

### Lower Bound Proofs for Hypergraph Discrepancy

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In this talk we discuss proofs for lower bounds on the geometric discrepancy function starting with classical results of K. Roth for geometric as well combinatorial hypergraph discrepancy. We then proceed to szenarios with discrepancy like functions appearing in Koksma-Hlawka type inequalities of the integration error of smooth functions, for example functions in Haar wavelet spaces or Sobolev spaces. Here some new and interesting discrepancy notions arise, for which lower bounds sometimes can be proved with an variation of Roths method.