



Gastvortrag

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13:15 Uhr

Seminarraum I

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Componentwise constructions of (polynomial) lattice point sets

Abstract:

Lattice point sets are often used as sample points in quasi-Monte Carlo algorithms for numerical integration. Properties of the point sets used influence the quality of the approximation obtained by the algorithm. Hence the goal is to find good lattice point sets.

The standard method for constructing generating vectors for good lattice point sets is the component-by-component (CBC) construction. Up to now there exist many varieties of CBC constructions to achieve different favorable properties of the constructed lattice point sets. We present some of these constructions and combine several of them in order to pool their advantages.

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