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The truncated discrete moment problem from one to infinite dimensions.

Abstract

The discrete truncated moment problem considers the question whether given a discrete subsets $K \subset \mathbb{R}$ and a sequence of real numbers one can find a measure supported on K whose (power) moments are exactly these numbers. The truncated moment is a challenging problem. We derive a minimal set of necessary and sufficient conditions. This simple problem is surprisingly hard and not treatable with known techniques. Applications to the truncated moment problem for point processes, the so-called relizability or representability problem are given. This is a joint work with M. Infusino, J. Lebowitz and E. Speer.

Talk time: 2016-07-22 15:30— 2016-07-22 15:50
Talk location: Cupples I Room 113

Session: Finite and infinite dimensional moment problems. Organized by M. Infusino, S. Kuhlmann, and T. Kuna.