M A T H E M A T I C A L P H Y S I C S S E M I N A R

Rutgers University
Hill Center - Room 705

The full infinite dimensional moment problem on semi-algebraic sets

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Abstract

In the recent years some progress has been made for the full moment problem on semi-algebraic sets. The latter are subsets of the d-dimensional Euclidean space given by polynomial constrains. In collaboration with Maria Infusion and Aldo Rota (Reading, UK) we generalized these results to semi-algebraic subsets of an infinite-dimensional space given by uncountable many constrains. We review the classical results and outline the proof. Then we demonstrate that the result gives new necessary and sufficient condition for the moment problem for random measures, random densities, point processes and other cases.