

**FWF**

Der Wissenschaftsfonds.



Analysis und Zahlentheorie

**Mathematisches Kolloquium**

13.12.2019, 15:15 Uhr

Seminarraum Analysis-Zahlentheorie, Kopernikusgasse 24, 2.OG

## **Approximation of probability measures by curves of finite length**

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The approximation of probability measures by atomic measures (measures supported on a finite set of points) is a classical task in approximation theory with a wide range of applications. Here, we replace atomic measures by measures supported on curves of finite length. For discrepancy as distance between measures, we prove optimal approximation rates in terms of the curve's length. We also develop numerical schemes that achieve the optimal rates, and we provide several numerical examples.

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