



香港中文大學統計學系

Department of Statistics

THE CHINESE UNIVERSITY OF HONG KONG

SEMINAR

DEPARTMENT OF STATISTICS
THE CHINESE UNIVERSITY OF HONG KONG

Supermartingale shadow couplings

INVITED SPEAKER

Dominykas NORGILAS,
Assistant Professor,
Department of Mathematics,
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TIME

January 3, 2023 (Tuesday) · 3:30 pm - 4:30 pm

VENUE

Zoom ID: 606 898 8598 · Password: cuhkstat · [Zoom link](#)

ABSTRACT

A classical result of Strassen asserts that given two probability measures on the real line which are in convex-decreasing order, there exists a supermartingale with these marginals. However, it is a non-trivial problem to construct particular (or canonical) supermartingales with prescribed marginals. In this talk we introduce a family of such supermartingales, each of which admits canonical characterization in terms of stochastic dominance. We explicitly construct the extreme elements (of this family) that solve the optimal transport problem with supermartingale constraints.