

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research
Department of Mathematics*

Numerical Analysis Seminar

Deterministic-Statistical Approach for Inverse Problems with Partial Data

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Abstract

We propose a deterministic-statistical approach for inverse problems with partial data. Certain deterministic method is first used to obtain useful (qualitative) information for the unknown. Then the inverse problem is recast as a statistical inference problem and the Bayesian inversion is employed to obtain more (quantitative) information of the unknowns. Several examples are presented for demonstration. Furthermore, we introduce new statistical estimators to characterize the non-unique solutions of several inverse problems.

Date: May 3, 2023 (Wednesday)

Time: 10:00am - 11:00am

Venue: ZOOM: <https://hku.zoom.us/j/>

Meeting ID: 913 6532 3891

Password: 310656

All are welcome