

## ABOUT

Began over a century ago, the National University of Singapore (NUS) has developed into an institution considered by many to be among the best in the world, with its transformative education and high impact research making a distinctive and positive impact on society.

The Department of Mathematics at NUS has been ranked among the best in Asia in recent QS World University Rankings by Subject. The Department offers a diverse and vibrant programme in undergraduate and graduate studies, in fundamental and applied mathematics. Faculty members' research covers all major areas of contemporary mathematics.

## CONTACT

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**Qiang Du**  
Columbia University

Friday, 14 February 2025

3.00 pm - 4.00 pm

S17 Level 3 (IMS Executive Seminar Room)

## Integral Models with Nonlocal Operators: Applications and Recent Development

Recent applications and theoretical developments of models of integral equations using nonlocal operators have shown promise as effective alternatives to local models, especially in the presence of singularities and anomalies. These models also serve as continuum limits for large-scale discrete models used in data learning and network analysis. We present these models on bounded spatial domains and discuss related modeling, analysis, and computational issues.