

# Seminar

## Prof. Luca Dieci

### Georgia Institute of Technology, USA

#### Topic

A Numerical Method for Semi-discrete Optimal Transport Problems

#### Date | Time

1 July 2024 (Monday) | 16:30 – 17:30 (HK Time)

#### Venue:

TU817

#### Abstract:

First, we review the semi-discrete optimal transport problem and its relation to a Laguerre tessellation. Then, we propose a new method for solving the semi-discrete optimal transport problem for cost functions that are a positive combination of  $p$ -norms,  $1 < p < \infty$ .

By exploiting the geometry of the Laguerre cells, we obtain an efficient and reliable implementation of Newton's method to find the sought subdivision. We give implementation details and some numerical results.