



# Analysis Seminar

## Lagrange Inversion Theorem

By

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**Abstract:** Generating function methods are commonly used for enumeration problems. For many counting problems, the structural properties of the combinatorial class yield a functional equation on the corresponding generating function. The Lagrange inversion theorem provides a powerful analytic method to obtain explicit expressions for the counting sequence from the functional equation satisfied by the generating function. I will discuss the proof of the Lagrange inversion theorem and present some applications of it.

**Date:** Thursday, May 25, 2023

**Time:** 16:00 – 17:00, GMT+3

**Place:** SA141 - Mathematics Seminar Room