The Graduate School of Science's Mathematics Seminar Series

Title: Estimates of Oscillatory Integrals

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Scan the QR code or go to: https://bit.ly/3H9gUpz
to register for free no later than 25 November 2021.

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Estimates of Oscillatory Integrals

MEAS Len

ABSTRACT: Oscillatory integral is a class of distributions that are defined in a particular way by formal integrals that appear to be divergent. The solution of many PDEs can be represented in form of the oscillatory integrals. In this talk we present some techniques that allow us to estimate oscillatory integral: non-stationary phase and stationary phase method. The principle of stationary phase states that the principal contribution in oscillatory integrals is given by a neighborhood of a critical point of the phase. Finally, we consider the asymptotic behavior of the solution of the Airy differential equation.