THE UNIVERSITY   **OF HONG KONG**

Institute of Mathematical Research
Department of Mathematics

Geometry Seminar

The Baker–Campbell–Hausdorff formula via mould calculus

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Abstract

We use Écalle's mould calculus to rederive the well-known Baker–Campbell–Hausdorff theorem and the classical Dynkin formula as well as a new one recently obtained by Kimura in Lie theory. We also analyse the relation between the formulas and indicate their mould calculus generalization to a product of more exponentials.

This is a recent published paper about application of mould calculus which is a small part of resurgence theory that I got involved recently. Hope that it falls into your interests.

Date: November 6, 2018 (Tuesday)

Time: 4:00 – 5:00pm

Venue: Room 210, Run Run Shaw Bldg., HKU

All are welcome