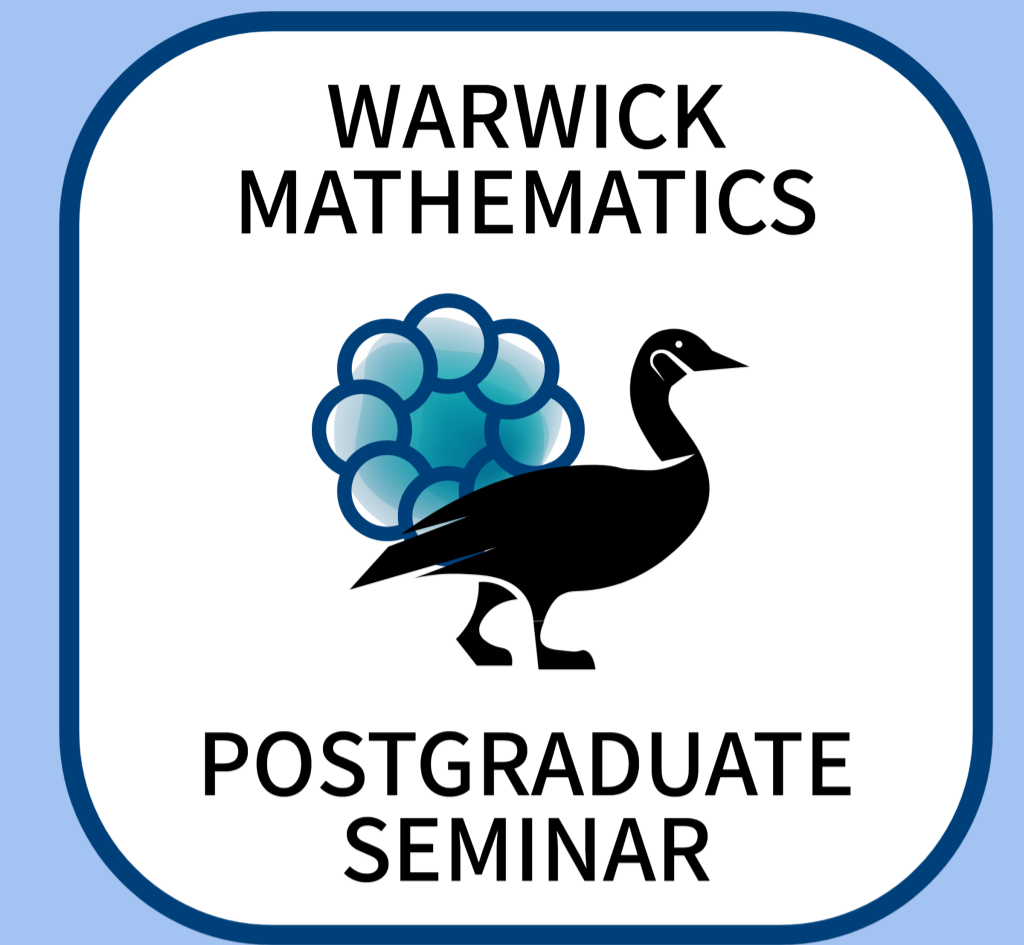


Introduction to deformation quantisation and formality

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Week 2 - Term 2



Abstract

In 1997, Kontsevich solved the problem of deformation quantisation on Poisson manifolds, which contributed to his winning of the 1998 Fields Medal.

This talk is an introduction to deformation quantisation. This is an approach of going from classical mechanics to quantum mechanics through deformation of the algebra of smooth functions on the phase space. I will explore the original idea from physics and go through some historical developments. Then I will give a crash course on deformation theory based on differential graded Lie algebras and L_∞ -algebras, and show its connection with deformation quantisation via Kontsevich's formality theorem.

Time

12 pm, 18th
January 2023

Location

Room B3.02

Organisers

Alvaro Gonzalez Hernandez
Katerina Santicola