

Student Geometry Seminar

國立清華大學數學系 學生幾何研討會

講題 Quasi-symplectic groupoids

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時間 2026.03.27 (Fri) 16:30 – 18:00

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Abstract

This talk explores the unifying geometric framework of quasi-symplectic groupoids introduced by Ping Xu. We begin by reviewing classical Hamiltonian G -spaces and Alekseev-Malkin-Meinrenken (AMM) quasi-Hamiltonian spaces, contrasting their momentum maps and reduction theorems. To reconcile these approaches, we introduce quasi-symplectic groupoids and their associated Hamiltonian Γ -spaces. This generalized setting naturally accommodates both the closed symplectic forms of classical mechanics and the twisted structures of AMM theory. Finally, we present the generalized reduction theorem for Hamiltonian Γ -spaces, demonstrating how it elegantly recovers both the classical Marsden-Weinstein reduction and the AMM reduction as distinct special cases.

Find more information at <https://sites.google.com/view/sgsnthu/home>

