

早稲田大学 東京
Waseda University, Tokyo

POISSON GEOMETRY, MODULI SPACES, AND APPLICATIONS

24-28 June 2019 Nishi-Waseda Campus, Room 60-303

These lectures (consisting of 3 courses) will provide an introduction to Poisson geometry, symplectic geometry, and some of their applications such as moduli spaces

*La vie n'est bonne qu'à deux choses: à faire des mathématiques et à les professer** — Siméon Denis Poisson

COURSE 1: "Introduction to Poisson geometry"

by Prof. Yvette Kosmann-Schwarzbach (Ecole Polytechnique, retired)

Schedule: Monday-Friday 10:40-12:10

Topics: Poisson manifolds and Poisson algebras, the symplectic foliation, Poisson–Lichnerowicz cohomology, Poisson Lie groups, Lie bialgebras and Lie bialgebroids, elements of the theory of Lie groupoids, multiplicative multivectors on Lie groups and Lie groupoids

COURSE 2: "Applications of Poisson geometry and related topics"

Schedule: Monday-Friday 13:00-14:30

Speakers: Prof. Yuji Hirota (Azabu University), Prof. Hiroaki Yoshimura (Waseda University), Prof. Noriaki Ikeda (Ritsumeikan University), Dr. Tomoya Nakamura (Waseda University), Prof. Yoshiaki Maeda (Tohoku University and Tohoku Forum for Creativity). Titles and abstracts of the lectures: please see the web page below

COURSE 3: "Introduction to moduli spaces of flat connections"

by Prof. Nan-Kuo Ho (National Tsing-Hua University)

Schedule: Monday-Friday 14:45-16:15

Topics: Connections on principal bundles, connections on vector bundles, character variety, the topology of the moduli space of flat connections, Hitchin's equations and the moduli space of solutions, symplectic geometry of the moduli spaces

The course is an activity of the Mathematics and Physics Unit "Multiscale Analysis, Modelling and Simulation" Top Global University Project, Waseda University. These lectures are also supported by the Institute for Mathematical Science, Waseda University. Visitors are welcome to attend. Enquiries may be directed to Prof. Martin Guest (e-mail: martin@waseda.jp)

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WEB PAGE: <http://www.f.waseda.jp/martin/conf/2019SGlectures.html>

**Life is good for only two things: doing mathematics and teaching it*