GRADUATE LECTURES

This series of lectures aims at Master’s and PhD students in mathematics and offers a first glimpse into topics which are not routinely taught in our MSc/PhD programme. The emphasis is to introduce new concepts and techniques, and not to present full mathematical details.

Real and complex algebraic geometry of Hamiltonian reductions

HANS-CHRISTIAN HERBIG (Universidade Federal do Rio de Janeiro)

I will explain how invariant theory can be used to study the semi-algebraic geometry of symplectic quotients arising from Hamiltonian reduction at zero level of the moment map of a unitary representation of a compact Lie group.

I will elaborate on the symplectomorphism problem for these spaces. In particular, I will explain what general features they have and what “invariants” can be used to distinguish them.

I will elaborate on how to complexify the spaces and discuss the role of largeness in all of this.

Dates: 23.07. / 24.07. / 25.07.2019
Time: 15:00 – 16:30
Raum: WIL A124