Julius-Maximilians-
UNIVERSITÄT
WÜRZBURG

MUΦX
Lehrstuhl X

Announcement

Seminar on Deformation Quantization and Geometry

3. 5. 2024 at 14:00 s.t.

Seminarroom SE 30

Christiaan van de Ven (JMU Würzburg)

The commutative resolvent algebra: an approach to dynamical classical lattice systems

The commutative resolvent algebra $C_R(X)$ of functions on a symplectic vector space (X, σ) is the classical analog of the celebrated resolvent algebra, introduced by Buchholz and Grundling in 2008. This commutative C^*-algebra turns out to have a rich structure, perfectly suitable to model classical dynamical systems on an infinite lattice, as well as on more general structures. We proof that for a large class of oscillating lattice systems the commutative resolvent algebra is stable under the dynamics induced by the pull-back of the ensuing Hamiltonian flow. Jointly with T. van Nuland (Technical University Delft).

Invited by Stefan Waldmann