



Institut de Mathématiques de Bourgogne

CNRS U.M.R. 5584

Université de Bourgogne



## Séminaire de mathématique physique

**Martin Schlichenmaier**

Université du Luxembourg

### Berezin-Toeplitz quantization of moduli spaces

**Résumé :** As was shown by Bordemann, Meinrenken, and Schlichenmaier the Berezin-Toeplitz (BT) operator quantization and its associated star product give a unique natural quantization for a quantizable compact Kähler manifold. In the talk an overview over BT quantization is given. The procedure is applied for the moduli space of gauge equivalence classes of  $SU(N)$  connections on a fixed Riemann surface. In the language of algebraic geometry this moduli space is the moduli space of semi-stable vector bundles over a smooth projective curve. In this context the Verlinde spaces and the Verlinde bundle over Teichmüller space show up. Recent results of J. Andersen on the asymptotic faithfulness of the representation of the mapping class group on the space of covariantly constant sections of the Verlinde bundle are presented.

Jeudi 3 décembre 2009 à 16h15 — salle A318, 3ème étage

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