universität**bonn**

Hauptvortrag/Plenary lecture

Montag/Monday, 12:00, Aula

Theta divisors on moduli spaces of vector bundles

GERD FALTINGS

The classical Riemann theta function can be interpreted as the determinant of the cohomology of line bundles on a Riemann surface. The generalization to vector bundles provides a projective embedding of the moduli space of vector bundles. Generalizing this to G-bundles for a reductive group G amounts to a) constructing the associated line bundle and b) finding enough global sections. Problem a) has been solved. Concerning b), the Verlinde formula shows that the dimension of the space of global sections is essentially one. A divisor has yet to be constructed.