



Leibniz  
Universität  
Hannover

# Oberseminar für Arithmetische Geometrie und Zahlentheorie

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## **On the basis problem for paramodular forms.**

In the mid seventies Eichler gave a method to construct the space of classical modular forms of square-free level  $N$  and weight  $k$  using positive definite quaternary quadratic forms (LNM 320). This result was later generalized by Hijikata to the case when the level has a prime appearing to the first power. In this talk we will recall Eichler's result and present a generalization to paramodular forms (with trivial Nebentypus and having a prime dividing the level to the first power) based on ideas of Ibukiyama and Kitayama. Our approach does not solve Eichler's original problem as it does not allow us to compute Fourier coefficients, but instead it computes Hecke eigenvalues (in particular it allows us to compute L-series).

**Freitag, 18.06.2021**

**11:00 - 12:00**

**Leibniz Universität Hannover**

**Alle Interessierten sind herzlich eingeladen.**