

Explicit methods in the theory of Jacobi forms of lattice index and over number fields

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In recent years we observed an increasing interest into an extension of the classical theory of Jacobi forms, in particular, into Jacobi forms with index of higher rank and Jacobi forms over number fields. We report about recent progress in the arithmetic theory of these types of Jacobi forms with an emphasis of explicit methods, examples, and applications to finding explicit finite closed formulas for the values of L -series of modular forms at the center of the critical strip, in particular, applications to the theory of elliptic curves. The talk is based on recent results of joint work with A. Ajouz, H. Boylan, S. Hayashida, and F. Strömberg.