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Characterization of Special Points on Orthogonal Shimura Varieties

We shall discuss a characterization of the special fields associated to the special points on the Shimura varieties attached to orthogonal groups $O_q$ coming from quadratic forms $q$ of signature $(2,n)$. Shimura reciprocity tells us that the values of modular forms at special points will always be contained in the Hilbert class field of a field closely related to the special field of the point. The characterization we give is obtained by way of a characterization of the algebraic tori $T \subset O_q$. 