

Automorphisms of even unimodular lattices.

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We characterize the irreducible polynomials that occur as a characteristic polynomial of an automorphism of an even unimodular lattice of given signature, generalizing a theorem of Gross and McMullen. As part of the proof, we give a general criterion in terms of Witt groups for a bilinear form equipped with an action of a group G over a discretely valued field to contain a unimodular G -stable lattice.