

In 1995, Quebbemann introduced the notion of modular lattices, which extends the property of being unimodular. Actually, an unimodular lattice is a lattice that is equal to its dual lattice, and a modular lattice is a lattice that is similar to its dual lattice.

We are interested here in constructing modular lattices using the trace construction over ideals in number fields. So if K is a number field, the set of modular lattices of given level over K is finite, and we can construct all modular lattices of given level over K if some modular lattice over K is given.

Actually, the class group of K acts on the set of modular lattices over K of given level, and an explicit finite subgroup of $F^*/N_{K/F}(K^*)$ acts transitively on the orbits under the class group.