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Weak Arithmetic equivalence

Inspired by the invariant of a number field given by its zeta function we define the notion of weak arithmetic equivalence and show that for certain families of number fields, e.g., semistable(having fundamental discriminant), this equivalence determines the local root numbers of the number field. This is analogous to the fact that for semistable rational elliptic curves the local root numbers are determined by the bad part of the L-function of the curve.