Base change and *K*-theory for Galois orbits of p-adic GL(n)

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## Abstract

Let E/F be a finite Galois extension of a nonarchimedean local fields and let G = GL(n). We investigate base change E/F at the level of K-theory for the reduced spherical  $C^*$ -algebra  $C^*_r(G//K)$  and the reduced Iwahori  $C^*$ -algebra  $C^*_r(G/I)$ . We also consider general orbits of GL(n) and show that, at the level of the K-theory group  $K^1$ , base change is multiplication by the residue degree f = f(E/F), generalizing the results obtained for the extended quotient.