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**Karol Koziol\***, 40 St. George Street, Toronto, Ontario M5S 2E4, Canada. *Projective dimensions of simple Iwahori-Hecke modules in characteristic  $p$ .*

A classical result of Bernstein implies that the category of smooth complex representations of a split  $p$ -adic reductive group has finite global dimension, and thus the associated complex Iwahori-Hecke algebra also has finite global dimension. In contrast, recent work of Ollivier-Schneider shows that the (pro- $p$ -)Iwahori-Hecke  $\mathbb{F}_p$ -algebra of a split  $p$ -adic reductive group has infinite global dimension (at least generically). We will build on some of these results to give a classification of simple Hecke modules (in characteristic  $p$ ) of finite projective dimension. (Received February 05, 2017)