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Anna Rio* (ana.rio@upc.edu) and **Daniel Gil** (daniel.gil.munoz@upc.edu). *Hopf-Galois module structure of dihedral D_{2p} local extensions.*

Study of nonclassical Hopf Galois module structure of rings of algebraic integers in extensions on local fields focuses on generalizations of Noether theorem, which for the classical structure states the existence of integral normal basis if and only if the extension is tamely ramified. By keeping the tameness condition but considering nonclassical Hopf Galois structures, Truman has obtained several results in this direction. On the other hand, Childs, Byott, et al. have studied wildly ramified cases of p -extensions. We consider the smaller nonabelian mixed case, namely local extensions of \mathbf{Q}_p with dihedral Galois group D_{2p} , combining the information on the wild p -part with the information on the tame quadratic subextension in order to evaluate freeness over the associated order for each Hopf Galois structure. (Received January 28, 2019)