

## COHOMOLOGICAL DIMENSIONS OF UNIVERSAL COSOVEREIGN HOPF ALGEBRAS

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**Abstract:** We compute the Hochschild and Gerstenhaber–Schack cohomological dimensions of the universal cosovereign Hopf algebras, when the matrix of parameters is a generic asymmetry. Our main tools are considerations on the cohomologies of free product of Hopf algebras, and on the invariance of the cohomological dimensions under graded twisting by a finite abelian group.

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**Key words:** Hopf algebra, cohomological dimensions, Yetter–Drinfeld module.