ON THE GALOIS CORRESPONDENCE THEOREM IN SEPARABLE HOPF GALOIS THEORY

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Abstract: In this paper we present a reformulation of the Galois correspondence theorem of Hopf Galois theory in terms of groups carrying farther the description of Greither and Pareigis. We prove that the class of Hopf Galois extensions for which the Galois correspondence is bijective is larger than the class of almost classically Galois extensions but not equal to the whole class. We show as well that the image of the Galois correspondence does not determine the Hopf Galois structure.

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Key words: Hopf algebra, Hopf Galois theory, Galois correspondence.