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Vladislav K. Kharchenko* (vlad@unam.mx), Primero de Mayo s/n, Campo 1, FESC-UNAM, 54768 Cuautitlán Izcalli, México, Mexico. *Noncommutative Galois theory: from subgroups to right coideal subalgebras.*

One-sided comodule subalgebras, but not the Hopf subalgebras, turn out to be the Galois objects in the Galois theory for Hopf algebra actions (A. Milinski, S. Montgomery, D. Passman, T. Yanai, S. Westreich, A. Masuoka). In particular, the Galois correspondence theorem for the actions on a free algebra set up a one-to-one correspondence between all right coideal subalgebras and all intermediate free subalgebras (V.O. Ferreira, L.S.I. Murakami, and A.Paques). In the talk we survey the development of the non-commutative Galois theory and provide recent results on the classification of the right coideal subalgebras of the Drinfel'd-Jimbo quantizations. (Received July 31, 2015)