1030-16-43   **Vladislav Kharchenko*** (`vlad@servidor.unam.mx`), Primero de Mayo, s/n, CIT, Campo 1, 54769 Cuautitlan Izcalli, Edo. de Me, Mexico, and **Alma Virginia Lara Sagahon**. *Coideal subalgebras in quantum groups.* Preliminary report.

A recent survey [1] provides a panorama of the use of one-sided coideal subalgebras in theory of quantum groups. The very one- sided comodule subalgebras, but not the Hopf subalgebras, turn out to be the Galois objects in the Galois theory for Hopf algebra actions [2,3]. We offer a complete classification of right coideal subalgebras which contain the coradical for the quantum group $U_q(sl_{n+1})$. This classification uses computer calculations and the following general theorem on the structure of the right coideal subalgebras.

THEOREM. *Let H be a character Hopf algebra. Every right coideal subalgebra that contains the coradical has a PBW-basis which can be extended up to a PBW-basis of H.*

1. G. Letzter, Coideal subalgebras and quantum symmetric pairs, in: S. Montgomery, H.-J. Schneider (Eds.) New Directions in Hopf Algebras, MSRI Publications, 43(2002), 117-165.

2. A. Milinski, Actions of pointed Hopf algebras on prime algebras, CIA, 23(1995), 313-333.

3. T.Yanai, Galois correspondence theorem for Hopf algebra actions, in: Algebraic structures and their representations, 393- 411, Contemporary Math., v. 376, AMS, Providence, RI, 2005. (Received July 01, 2007)