1124-16-28 **Hiroyuki Yamane*** (hiroyuki@sci.u-toyama.ac.jp), Department of Mathematics, Fac. of Sci., University of Toyama, Gofuku, Toyama 930-8555, JAPAN, Toyama, Toyama 930-8555, Japan.
Representations of generalized quantum groups.

Let K be an algebraically closed field. Let $K^\times := K \setminus \{0\}$. Let X be a finite rank free abelian group. Let $\chi : X \times X \to K^\times$ be a map such that $\chi(a+b,c) = \chi(a,c)\chi(b,c)$ and $\chi(a,b+c) = \chi(a,b)\chi(a,c)$. Let n be a rank of X. Let $I := 1,\ldots,n\}$. Let $\Pi = \{\alpha_i | i \in I\}$ be a base of X. To the pair (χ, Π), one can associate a Hopf K-algebra $U = U(\chi,\Pi)$ in a standard way. Let G be a simple Lie algebra of rank n. For some (χ,Π), U is virtually isomorphic to the quantum group U_qG (resp. the small quantum group u_qG), or the (small) quantum superalgebra of a simple (contragredient, or basic classical) Lie superalgebra. The following results have been achieved. (1) Matsumoto type theorem of Weyl groupoids (joint with Heckenberger (2008)). (2) Shapovalov determinants of U (joint with Heckenberger (2010)). (3) Universal R-matrix of U (joint with Angiono (2015)). (4) Classification of the finite dimensional simple modules of U (joint with Azam and Yousofzadeh (2015)). (5) Harish-Chandra type theorem of U (joint with Batra (2013)). In the talk, mainly (4) and (5) will be presented. (Received August 01, 2016)