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**Naihuan Jing\*** ([jing@math.ncsu.edu](mailto:jing@math.ncsu.edu)), Department of Mathematics, North Carolina State University, Raleigh, 27695. *Drinfeld realization for quantum affine algebras.*

Quantum groups are first defined by Drinfeld and Jimbo in terms of Chevalley generators and Serre relations. Later Drinfeld announced a new realization for the quantum affine cases and set off lots of new researches using his realization including the vertex representations and various applications to mathematical physics. Drinfeld's realization for the untwisted cases was first completely proved by J. Beck using loop group action, and also proved by the presenter using elementary methods. In this joint work with H. Zhang we will prove the Drinfeld realizations for all the twisted cases following the presenter's earlier method. (Received January 09, 2007)