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Poisson geometry of large quantum groups.

In a celebrated sequence of works from the 1990s, De Concini, Kac and Procesi constructed a Poisson geometric framework for the study of the irreducible representations of big quantum groups at roots of unity. We will describe an extension of this framework to a large family of Drinfeld doubles arising in the classification of pointed Hopf algebras, which includes as special cases the families of all big quantum groups and supergroups at roots of unity. This is done by a new method, based on perfect pairings between restricted and non-restricted integral forms, which does not rely on any direct computations of Poisson brackets and reductions to low rank cases. We will provide an intuitive introduction to all of the above notions. (Received September 14, 2020)