Classification of quantum groups

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Abstract: *Let g be a simple complex finite-dimensional Lie algebra. According to results of Etingof and Kazhdan, there exists an equivalence between the category HA_0(C[[h]]) of topologically free Hopf algebras cocommutative modulo h and the category LBA_0(C[[h]]) of topologically free over C[[h]] Lie bialgebras with \delta≡ 0 (mod h). Due to this equivalence, the classification of quantum groups whose quasi-classical limit is g is equivalent to the classification of Lie bialgebra structures on g ⊗ C[[h]]. This in turn reduces to the problem of finding Lie bialgebras on g ⊗ C ((h)) since any cobracket over C[[h]] can be extended to one over C((h)) and conversely, any cobracket over C((h)), multiplied by an appropriate power of h, can be restricted to a cobracket over C[[h]].*

In my talk I will explain how to approach the latter problem, the description of all Lie bialgebra structures on g ⊗ C((h)).