1132-16-22 **Leonid Krop*** (`leonard.krop@gmail.com`), Department of Mathematical Sciences, Chicago, IL 60614. *The number of non-isomorphic Hopf algebras in some classes of Hopf algebras.*

Let p be a prime number and G a finite abelian p-group. A class in the title consists of semisimple Hopf algebras H over an algebraically closed field of characteristic 0 of dimension $p|G|$ with the group of grouplikes equals to G. We denote by $\mathcal{C}(G)$ a class of this kind.

We let $N_G(p)$ stand for the number of isomorphism classes of nontrivial, i.e. neither commutative, nor cocommutative, Hopf algebras in $\mathcal{C}(G)$. The goal of this presentation is to compute $N_G(p)$ for all 2-generator, non-cyclic abelian p-groups, i.e. groups $G = \mathbb{Z}_{p^e} \oplus \mathbb{Z}_{p^f}$. Let us write $N_G(p) = N_{e,f}(p)$ if G is as above. Some particular values of $N_{e,f}(p)$ are known. First, A. Masuoka has shown that $N_{1,1}(p) = p+1$ for $p > 2$ and the author computed $N_{e,1}(p) = 2p + 8$ if either $e \geq 3$ or $p > 3$ and $N_{2,1}(3) = 16$. Y. Kashina proved recently that $N_{2,2}(2) = 16$.

The main result of the talk consists of the formulas for the functions $N_{e,f}(p)$ for all e, f and $p > 3$, namely

$$N_{e,e}(p) = p + 4 \text{ for } e \geq 2, p > 3$$
$$N_{e,f}(p) = 3p + 9 \text{ for } e > f \geq 2, p > 3$$

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