

[Farkas, Eva C.](#)

Hopf algebras of smooth functions on compact Lie groups. (English) Zbl 1051.16021
Commentat. Math. Univ. Carol. 41, No. 4, 651-661 (2000).

Let G be a Lie group and let $C^\infty(G)$ be the algebra of smooth functions on G . A C^∞ -algebra, which, at the same time, satisfies the axioms of a convenient Hopf algebra, is called a C^∞ -Hopf algebra. The author characterizes those C^∞ -Hopf algebras which are given by $C^\infty(G)$ for some Lie group G , obtaining thereby an anti-isomorphism between the category of compact Lie groups and the category of convenient Hopf algebras.

Reviewer: [Luboš Pick \(Praha\)](#)

MSC:

16W30 Hopf algebras (associative rings and algebras) (MSC2000)
22E20 General properties and structure of other Lie groups
46E25 Rings and algebras of continuous, differentiable or analytic functions

Cited in 1 Document

Keywords:

C^∞ -Hopf algebras; compact Lie groups; dualities; categories of Hopf algebras

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