Universität Hamburg
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Fakultät für
Mathematik, Informatik
und Naturwissenschaften

# Kolloquium über Reine Mathematik

Einladung zu einem Vortrag

## Dienstag, 24. Januar 2017

17 Uhr s.t., Geom H4


## Prof. Dr. Christoph Schweigert
(Universität Hamburg)


## *Radford's $S^4$ theorem — old and new*


Abstract:

Hopf algebras are an algebraic structure generalizing group algebras; they have applications in combinatorics, geometry, representation theory and mathematical physics. A classical theorem of Radford, dating back to 1976, describes the forth power of the antipode, a structure generalizing the inverse in a group.

In the talk, we relate this theorem to other algebraic structures of independent interest: we present Morita-invariant versions of Eilenberg-Watts theorems which give equivalences of categories. These equivalences turn out to be compatible with the structure of module categories over finite tensor categories, leading to a natural generalization of Radford's $S^4$-theorem to bimodule categories.


**Vor dem Vortrag (ab 16.30 Uhr) stehen im Raum 327 Kaffee und Tee bereit.**