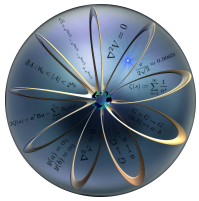

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comodule algebra

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Let H be a bialgebra. A **right H-comodule algebra** is a unital algebra A which is a right H-comodule satisfying

$$t(ab) = t(a)t(b) = \sum a_{(1)}b_{(1)} \otimes a_{(2)}b_{(2)}, \quad t(\mathbb{1}_A) = \mathbb{1}_A \otimes \mathbb{1}_H, \tag{1}$$

for all $h \in H$ and $a, b \in A$.

There is a dual notion of a H-module coalgebra.

Example 1
Let H be a bialgebra. Then H is itself a H-comodule algebra for the right regular coaction $t(h) = \Delta(h)$.