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coinvariant

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Let V be a comodule with a right coaction $t: V \rightarrow V \otimes A$ of a coalgebra A . An element $v \in V$ is **right coinvariant** if

$$t(v) = v \otimes \mathbb{1}_A. \tag{1}$$

The set of coinvariants of A is a sub-comodule with the trivial coaction of A . The sub-comodule of right (or left) coinvariants of V is sometimes denoted by $V^{\text{co}A}$ (or ${}^{\text{co}A}V$).