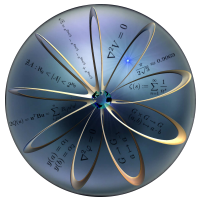

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supercommutative

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Related topic	SuperAlgebra

Let R be a $\mathbb{Z}_2$-graded ring (or more generally, an associative algebra). We say that R is *supercommutative* if for any homogeneous elements a and $b \in R$:

$$ab = (-1)^{\deg a \deg b} ba.$$

In other words, even homogeneous elements are in the center of the ring, and odd homogeneous elements anti-commute.

Common examples of supercommutative rings are the exterior algebra of a module over a commutative ring (in particular, a vector space) and the cohomology ring of a topological space (both with the standard grading by degree reduced mod 2).