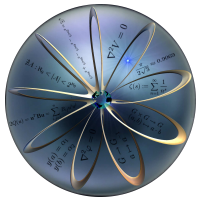

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oriented cobordism

Canonical name	OrientedCobordism
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Two oriented n-manifolds M and M' are called *cobordant* if there is an oriented $n+1$ manifold with boundary N such that $\partial N = M \coprod M'^{opp}$ where M'^{opp} is M' with orientation reversed. The triple (N, M, M') is called a *oriented cobordism*. Cobordism is an equivalence relation, and a very coarse invariant of manifolds. For example, all surfaces are cobordant to the empty set (and hence to each other).

There is a cobordism category, where the objects are manifolds, and the morphisms are cobordisms between them. This category is important in topological .