

Kireïtov, V. R.**On symplectic cobordisms.** (English. Russian original) [Zbl 0216.20201](#)[Math. USSR, Sb. 12\(1970\), 77-89 \(1971\)](#); translation from [Mat. Sb., n. Ser. 83\(125\), 77-89 \(1970\)](#).

Summary: In the article, the method of spherical reconstructions of smooth manifolds is applied to the computation of some groups of symplectic cobordisms. Namely, it is proved that $\Omega_{Sp}^5 = \mathbb{Z}_2$, $\Omega_{Sp}^6 = \mathbb{Z}_2$ and $\Omega_{Sp}^7 = 0$. The indicated values of the groups of cobordisms for dimensions 5 and 6 are known and follow from arguments of the Adams spectral sequence for Sp -cobordisms. The new result is the fact that the seventh group of cobordisms equals 0. This is the fundamental result of the article. The theorem concerning the reconstruction of manifolds with a quasisymplectic structure in the normal bundle, which is proved in the article, and the theorem on integer values of Atiyah-Hirzebruch constitute the basis for the proof.

MSC:

- [57N70](#) Cobordism and concordance in topological manifolds
- [57R17](#) Symplectic and contact topology in high or arbitrary dimension
- [57R90](#) Other types of cobordism
- [22Exx](#) Lie groups
- [55R10](#) Fiber bundles in algebraic topology

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