

TOWARDS A SYMPLECTIC-CONTACT COBORDISM CATEGORY

DAVID AYALA
STANFORD UNIVERSITY

Recent work of Galatius-Madsen-Tillmann-Weiss has determined the homotopy type of cobordism categories with extra tangential structure such as orientation or an almost complex structure. We apply an h -principle to attempt to extend their result to the more geometric situation of a category whose objects are contact 3-manifolds and whose morphisms are symplectic cobordisms. Understanding such a category might give insight into possible invariants of contact geometry and perhaps shed light onto one side of Symplectic Field Theory.