

SIMPLICIAL DECOMPOSITIONS AND THE CHEKANOV-ELIASHBERG DG-ALGEBRA

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In this talk we introduce simplicial decompositions of Weinstein manifolds. Special cases of simplicial decompositions include Weinstein connected sum and stopped Weinstein manifolds. This type of decomposition allows us to define the Chekanov-Eliashberg dg-algebra for singular Legendrians and we prove the conjectured surgery formula relating partially wrapped Floer cohomology to Chekanov-Eliashberg dg-algebras with coefficients in chains on the based loop space. We furthermore prove that the Chekanov-Eliashberg dg-algebra of the union of the attaching spheres satisfies a descent (cosheaf) property with respect to a simplicial decomposition. If time permits we explain how simplicial decompositions corresponds to so-called good sectorial covers, and that our descent property allows us to recover the descent result for wrapped Fukaya categories by Ganatra-Pardon-Shende. This talk is partly based on joint work with Tobias Ekholm.