PhD THESIS DEFENSE

ORDERABILITY IN CONTACT MANIFOLDS

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ABSTRACT: Consider a (2n+1)-dimensional contact manifold (M, ξ). We explain the relation between the non-existence of positive loops of Legendrian submanifolds and the existence of a partial order on the space of Legendrian isotopic submanifolds. We construct positive loops of Legendrian submanifolds in several instances. In particular, we partially recover G. Liu’s result stating that any loose Legendrian admits a positive loop, under some mild topological assumptions on the Legendrian.