NON-TRIVIAL HOMOTOPY IN THE SPACE OF LEGENDRIANS ISOTOPIC TO THE ZERO SECTION IN A JET-1 BUNDLE.

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Abstract: In this talk I will recall the definition of the pseudo-isotopy space $P(M)$ of a smooth manifold M of dimension n and how it relates to the h-cobordism theorem. I will then describe how to construct maps on the $(n/4-3)$-skeleta of $P(M)$ into the space of Legendrian embeddings in the Jet-1 bundle $J^1(M)$ isotopic to the zero section, and sketch a proof of why this is split injective on homotopy groups. This is joint work with Yasha Eliashberg.