Cosheaves of wrapped Fukaya categories
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The Fukaya category is an interesting invariant of symplectic manifolds which is in general difficult to calculate. This talk concentrates on Fukaya categories of Stein manifolds, complex analytic submanifolds of $\mathbb{C}^n$. A conjecture of Kontsevich predicts the structure of these Fukaya categories, namely that they are in fact built out of *local* invariants of the Lagrangian spine of the Stein manifold in question. Joint work with Sheel Ganatra and Vivek Shende seeks to address this conjecture. First, we define a reasonable class of so called "Liouville sectors", certain symplectic manifolds with boundary. An inclusion of Liouville sectors induces a pushforward functor on wrapped Fukaya categories. This fact (that the wrapped Fukaya category forms a precosheaf) already allows some interesting applications, such as verification of Abouzaid's generation criterion. Second, we study when this pre-cosheaf is actually a cosheaf. I will explain everything in concrete terms and with examples.

References

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