1147-57-111   **Claudius B Zibrowius*** (`cbz20@math.ubc.ca`). *The Fukaya category of the 4-punctured sphere in Heegaard Floer and Khovanov homology.*

About 15 years ago, Bar-Natan showed how to associate with a tangle a chain complex over a certain finite category such that the homotopy type of this chain complex is a tangle invariant generalising Khovanov homology. In this talk, I will describe a geometric interpretation of this chain complex for 4-ended tangles in terms of immersed curves on the 4-punctured sphere. It is interesting to compare this invariant to another immersed curve invariant for 4-ended tangles which I defined in my PhD thesis in the context of Heegaard Floer theory: both invariants come with pairing theorems in terms of Lagrangian intersection theory, both are natural with respect to the mapping class group action of the 4-punctured sphere and both invariants detect rational tangles. They are also both algorithmically computable, so I will discuss plenty of examples.

Part of this is joint work with Liam Watson and Artem Kotelskiy, which was inspired by recent work of Hedden, Herald, Hogancamp and Kirk. (Received December 20, 2018)