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Spectral sequence computations in knot Floer homology

A defining feature of the knot Floer homology of a knot $K \subset S^3$ is the spectral sequence converging to the Heegaard Floer homology of S^3 . By studying the behavior of the Legendrian invariants λ^{\pm} under this spectral sequence, we can obstruct the existence of decomposable Lagrangian cobordisms between Legendrian knots. I will talk about recent work in this direction, including computational aspects and potential applications of similar ideas to other spectral sequences.

This talk is based on joint work with Mitchell Jubeir, Ina Petkova, Noah Schwartz, and C.-M. Michael Wong.