1176-57-147 **Donghao Wang*** (dwang@scgp.stonybrook.edu). *Seidel's Spectral Sequence and Monopole Floer Homology.* Preliminary report.

The algebraic topology of a finite dimensional manifold is manifested by Morse theory using a real valued Morse function, while the symplectic topology of a Kähler manifold can be probed by a holomorphic Morse function using Picard-Lefschetz theory. The first viewpoint has been successfully generalized to the infinite dimensional case by Floer in late 1980s producing powerful invariants in both low dimensional topology and symplectic topology.

In this talk, we will discuss the generalization of the second idea to one particular infinite dimensional example – the Seiberg-Witten equations, following the proposals of Haydys and Gaiotto-Moore-Witten. In particular, we will outline an alternative proof to Seidel's spectral sequence for Lagrangian Floer cohomology, which may help us approach this infinite dimensional problem. This talk is merely a progress report on an ongoing project. (Received January 19, 2022)