# Linearization and Transversality

## Sections 8.3 and 8.4

D. Zack Garza

April 2020

# Review 8.2

# Section 8.3: The Space of Perturbations of H

# Goal



**Goal**:

Given a fixed Hamiltonian $H \in C^\infty(W \times S^1; \mathbb{R})$, perturb it (without modifying the periodic orbits) so that $\mathcal{M}(x, y)$ are manifolds of the expected dimension.

# Section 8.4: Linearizing the Floer Equation: The Differential of F