

## **Heterotic moduli spaces with varying complex structure**

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Beyond the moduli space of Calabi-Yau manifolds, moduli spaces of heterotic flux compactifications in string theory have attracted a lot of attention over the years. In the case of real dimension six (and most likely also in critical dimensions 5,7,8), where the relevant equations are known as the Hull–Strominger system, these moduli spaces have an interesting interplay with higher gauge theory, derived geometry, and conjectural extensions of mirror symmetry. In this talk I will overview the general picture about the moduli space for these equations focusing in dimension six, and present a novel construction of the moduli space with varying complex structure via higher symplectic reduction. As will see, our construction provides a novel viewpoint on the classical moduli space of Calabi-Yau metrics and b-fields. Based on joint work with A. Llosa Lazo.