

## **SU(3) structures on Calabi-Yau manifolds**

*Thursday, 20 June 2019 11:00 (45 minutes)*

In this talk, we show that a range of non-trivial SU(3) structures can be constructed on complete intersection Calabi-Yau three-folds. Among the possible SU(3) structures we find Strominger-Hull systems, suitable for heterotic or type II string compactifications. These Strominger-Hull SU(3) structures need to be supported by source terms in the associated Bianchi identity. We discuss the possibility of finding such source terms and present first steps towards their explicit construction. Provided suitable sources exist, our methods lead to Calabi-Yau compactifications of string theory with a non Ricci-flat, physical metric which can be written down explicitly and in analytic form. The talk is based on the paper 1805.08499.

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