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David Wen*, dwen@math.ucsb.edu. *Towards Minimal Models of Elliptic Fourfolds.*

Fiber spaces play an important role in the minimal model program as the possible end results reduce the down to the cases of Mori fiber spaces, Iitaka fibrations over canonical models and varieties of general type. A natural problem to consider would be, if we started with an algebraic fiber space, how might it behave under the birational transformations in the minimal model program. More specifically and concretely, with a few extra assumptions we can ask, does an elliptic fibration establish a relationship between minimal models of the total space and base space? The case of elliptic threefolds was established by Grassi relating minimal models of elliptic threefolds to log minimal models of the base surface. This talk will present some ideas towards understanding the elliptic fourfold case and higher dimensions. (Received September 15, 2017)