

1108-14-105      **Nicolas Addington\*** ([adding@math.duke.edu](mailto:adding@math.duke.edu)). *Recent developments in rationality of cubic fourfolds.*

The question of which cubic 4-folds are rational is one of the foremost open problems in algebraic geometry. I will discuss three approaches to answering it – one due to Hassett (1996) using Hodge theory, one due to Kuznetsov (2008) using derived categories, and one due to Galkin and Shinder (2014) using the Grothendieck ring of varieties – as well as my own work relating the three approaches to one another, and the troubles that have befallen each approach. (Received January 05, 2015)