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Tree compactifications of the moduli space of genus zero curves

The moduli space $M_{0,n}$ of smooth genus zero curves with n marked points has a standard compactification by the Deligne-Mumford moduli space of stable genus zero curves with n marked points. The compactification can be constructed as the closure of $M_{0,n}$ inside a toric variety. The fan of the toric variety is moduli space of phylogenetic trees. I will discuss joint work with Dustin Cartwright to construct other compactifications of $M_{0,n}$ by varying the toric variety using variants of phylogenetic trees. These compactifications include many of the standard alternative compactifications of $M_{0,n}$.