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Vance Blankers* (v.blankers@northeastern.edu). *Alternative compactifications of the moduli space of curves.*

The moduli space of curves is an important object in modern algebraic geometry, both interesting in its own right and serving as a test space for broader geometric programs. These often require the space to be compact, which leads to a variety of choices for compactification, the most well-known of which is the Deligne-Mumford-Knudsen compactification by stable curves, originally introduced in 1969. Since then, several alternative compactifications have been constructed and studied, and in 2013 David Smyth used a combinatorial framework to make progress towards classifying all "sufficiently nice" compactifications. In this talk, I'll discuss some of the most well-studied compactifications, as well as two new compactifications, which together classify the Gorenstein compactifications in genus 0 and genus 1. This is based on joint work with Sebastian Bozlee. (Received January 24, 2022)