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Nathan Pflueger* (pflueger@math.harvard.edu). *Towards a tropical Castelnuovo-Severi inequality.* Preliminary report.

I will consider the question: if a tropical curve has two harmonic maps to trees of degree d and e , how large can its genus be? For the analogous question in classical algebraic geometry, the Castelnuovo-Severi inequality gives a (sharp) bound of $(d - 1)(e - 1)$ in the case where d and e are relatively prime. I will discuss partial results towards a tropical analog of this inequality, and discuss possible applications to the divisor theory of tropical plane curves. (Received September 16, 2013)