Yi Hu and Jingchen Niu* (jniu@math.arizona.edu). Moduli of curves of genus one with twisted fields.

We construct a smooth moduli stack of genus one weighted curves with twisted fields. This leads to a modular interpretation of Vakil-Zinger’s desingularization of the moduli of genus one stable maps to projective spaces. The methods and ideas of this paper have been applied to obtain a modular resolution of the moduli of genus two stable maps by the same authors and are expected to extend to higher genera cases. (Received September 17, 2019)