Aaron Pixton* (apixton@mit.edu). Families of tautological relations.

The tautological ring of the moduli space of smooth curves of genus $g$ is the subring of its Chow ring generated by the kappa classes. The Faber-Zagier relations are a large family of polynomial relations between the kappa classes, conjectured to give all such relations. In 2012 Qizheng Yin described a method of constructing relations in the tautological ring using the geometry of the universal Jacobian. I will discuss recent work connecting Yin’s relations to the Faber-Zagier relations. (Received September 20, 2015)