1165-14-232 **Hyuk Jun Kweon*** (kweon@mit.edu). *Bounds on the Torsion Subgroups of Néron–Severi Groups.*

Let $X \hookrightarrow \mathbb{P}^r$ be a smooth projective variety defined by homogeneous polynomials of degree $\leq d$. We give an explicit upper bound on the order of the torsion subgroup $(\mathrm{NS}\, X)_{\mathrm{tor}}$ of the Néron–Severi group of X. The bound is derived from an explicit upper bound on the number of irreducible components of the scheme $\mathbf{CDiv}_n X$ parametrizing the effective Cartier divisors of degree n on X. We also show that the torsion subgroup $(\mathrm{NS}\, X)_{\mathrm{tor}}$ of the Néron–Severi group of X is generated by $(\deg X - 1)(\deg X - 2)$ elements. (Received January 18, 2021)