Asaf Horev, Inbar Klang and Foling Zou* (zoufoling@uchicago.edu). Equivariant factorization homology of Thom spectra. Preliminary report.

Let $G$ be a finite group and $V$ be a finite dimensional $G$-representation. The equivariant factorization homology has been defined and studied by the first author. We show that when coefficient algebra $A$ is the Thom spectrum of an $E_V$-map, the factorization homology of $A$ can be computed by a certain Thom spectrum. With nonabelian Poincaré duality, we can simplify the result in some cases. In particular, we compute $\text{THR}(\mathbb{H}_2)$, $\text{THR}(\mathbb{H}_{(2)})$, $\text{THH}_{C_2}(\mathbb{H}_2)$. Our approach generalizes the second author’s work in the nonequivariant case. (Received July 14, 2019)