1154-17-391 M Elhamdadi, M Saito and Emanuele Zappala* (zae@mail.usf.edu). Heap cohomology and ternary self-distributive cohomology.

Heaps are para-associative ternary operations bijectively exempli fied by groups endowed with the operation $(x, y, z) \mapsto xy^{-1}z$. They are also ternary self-distributive, and therefore have a diagrammatic interpretation by framed links. Motivated by these properties, I will introduce heap cohomology and ternary self-distributive cohomology with abelian heap coefficients, with the purpose of de fining framed link cocycle invariants. I will also explain the relation intercurring between heap cohomology, and ternary self-distributive and group cohomologies. I will briefly discuss, lastly, heap objects in symmetric monoidal categories. (Received September 03, 2019)