

1099-57-330

Jozef H. Przytycki* (przytyck@gwu.edu), Department of Mathematics, George Washington University, Washington, DC 20052, and **Krzysztof K. Putyra**, Columbia University. *Degenerate homology in frail simplicial modules.*

We discuss the degenerate part of homology of simplicial (or weak simplicial, or very weak simplicial (frail) modules. We start from recalling the classical normalization result of Eilenberg and Mac Lane, 1950, that the degenerate part of the homology of a simplicial module (which Eilenberg and Zilber introduced in 1950 under the name “complete semi-simplicial complex”) is trivial. We describe our recent result that the degenerate part of the rack homology of a quandle or a spindle (RDIS) is determined by the normalized part of the rack homology (we deal here only with a weak simplicial module). Finally, we analyze the case of the very weak (frail) simplicial module (here $t_i = d_i s_i - d_{i+1} s_i$ is not necessarily equal to zero) and discuss the generalized degeneracy of rack chain complexes of racks and shelves (RDS). (Received February 11, 2014)