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**Claudio Murolo** and **David J.A. Trotman\*** ([david.trotman@univ-amu.fr](mailto:david.trotman@univ-amu.fr)). *Whitney cellulations of Whitney stratified sets and Goresky's Whitney homology conjecture.*

In 1981 Mark Goresky conjectured that the homology of a Whitney stratified set can be represented by Whitney stratified cycles. More precisely he defined a Whitney homology theory and conjectured the bijection of the homology groups with those of the usual homology. He proved such a bijection for cohomology, and in the special case of a Whitney stratified manifold proved the bijection for homology. We give a proof of Goresky's conjecture by showing that every Whitney stratified set admits a refinement which is a Whitney regular cell decomposition. Our proof depends on some results obtained in our recent proof of the smooth Whitney fibering conjecture (2016), in particular on a horizontally  $C^1$  improvement of the Thom-Mather isotopy theorem and the existence of a local Whitney regular wing structure in a neighborhood of each stratum. (Received January 21, 2019)