

On Gorenstein global and Gorenstein weak global dimensions

Qingyu Shao*, Junpeng Wang, Gang Yang and Xiaoxiang Zhang

Southeast University
Northwest Normal University
Lanzhou Jiaotong University
Southeast University
E-mail: sqy7792023@163.com

It is well known that the weak global dimension of a ring does not exceed its global dimension. Christensen et al obtained a corresponding result in Gorenstein setting for coherent rings. We extend this result to an arbitrary ring. As applications, we characterize the finiteness of (Gorenstein) global dimension by singularity categories and Gorenstein flat modules. This is a joint work with Junpeng Wang, Gang Yang and Xiaoxiang Zhang.

References

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