

# On resolvent and exact homological dimensions

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## **Abstract**

In Enochs' homological dimensions theory, the so called resolvent dimensions occur and are defined by using resolutions in terms of either pre-covers or preenvelopes. Recently, some authors have paid attention to the homological dimensions defined with just exact sequences (so not necessarily resolutions). In this talk we investigate these two kind of homological dimensions relative to some particular cases of subcategories. Moreover, relative derived functors are studied and generalizations of some known results of balance for relative homology are established. Also, applications to some particular cases of self-orthogonal subcategories are given.