On a New Relative Invariant Covering Dimension [*]

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Abstract: In [7] (see also [2, p. 35]) two relative covering dimensions, denoted by dim and dim*, defined and studied. In [3] and [4] we studied these dimensions and we gave some properties including subspace, sum, partition, compactification, and product theorems. Also, we gave partial answers for the questions which are given in [7]. Here we give and study a new relative covering dimension, denoted by r-dim, which is different from dim and dim*. Finally, we give some questions concerning the new relative dimension r-dim.

Key words: Covering dimension, relative dimension.

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