

# Good real deformations of co-rank one map germs from $R^3$ to $R^3$

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A stable deformation of a finitely determined real map-germ from  $(R^n, S)$  to  $(R^p, 0)$ , with  $p > n$ , is called a good real deformation if the real image has  $n$ -th homology of rank equals to the image Milnor number  $\mu_I(f)$ , so that inclusion of real image in complex image induces an isomorphism of the corresponding homologies. For  $n \geq p$  there is an analogous definition with discriminant in place of image. The existence of good real deformations of map germs is one of the more interesting questions in Singularity Theory. In this work we investigate this question for all simple co-rank one map germs from  $R^3$  to  $R^3$ , we give a complete description of that which have a good real deformation. The main source of information to study these questions is obtained from the topology of the multiple points set of these germs.