Classification of multigerms (Methods of classification of multigerms)

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Abstract: The classification of singularities of differentiable maps has been one of the main research topics in Singularity Theory since the very beginning. When considering a classification as a tool for different purposes, knowing only the stable germs or the classification of simple monogerms is sometimes not enough. With dimensions of the source and target space growing and the need of multigerms, it has been necessary to develop new methods in order to obtain such classifications. The purpose of this mini-course is to show these new methods.

We will give an overview of the basic definitions and the classical methods with plenty of examples. We will then give an exposition of new methods such as the use of operations and show recent results in this area such as constructive methods to obtain all codimension 1 and 2 multi-germs for a fixed pair (n, p). If time permits we will talk about simplicity and liftable vector fields.

References

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