On the Number of Connected Components of the Relative Closure of a Semi-Pfaffian Family

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A theorem by Wilkie says that the structure generated by Pfaffian functions is o-minimal. In order to be able to give quantitative version of this result, Gabrielov was lead to introduce the notion of relative closure of a (one-parameter) Pfaffian couple. In this talk, we give explicit bounds on the number of connected components of the relative closure $(X, Y)_0$ in terms of the complexity of the couple (X, Y).