Abstract

Let $\mathbb{K}$ be an algebraically closed field of characteristic $p \geq 0$. The aim of the thesis is to give the classification of simple parameterized space curve singularities over $\mathbb{K}$. The idea is to give explicitly a class of families of singularities which are not simple such that almost all singularities deform to one of those and show that the remaining singularities are simple.

• In [7] Gibson and Hobbs gave the classification for parameterized space curve singularities for characteristic zero. In characteristic 0, one can use for the classification the results of Mather [14] using complete transversals. This theory is not available in positive characteristic. Their method cannot be adapted for positive characteristic.

• In Chapter 2, we give a new proof for those results with an approach that can be transformed for positive characteristic.

• In Chapter 3, we proceed our work for the positive characteristics. We give the classification of simple parameterized space curve singularities over $\mathbb{K}$ in characteristic $p > 0$. These proofs are based on explicit computations.

• In Chapter 4, we develop a classifier for simple parameterized space curve singularities.