

HARTMAN–GROBMAN THEOREMS LIKE FOR FILIPPOV SYSTEMS

Let $\mathcal{Z} = (\mathcal{X}, \mathcal{Y})$ be a Filippov system defined in \mathbb{R}^n . The generic singularities of \mathcal{Z} are

1. the hyperbolic singular points of \mathcal{X} and \mathcal{Y} .
2. Hyperbolic critical points of the sliding vector field.
3. the tangency–regular points whose the order of tangency is $k \leq n$.

In this work, versions of Hartman–Grobman Theorem around generic singularities are obtained.