

## Piecewise smooth systems with a pseudo-focus: a normal form approach

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**Abstract:** The analysis of planar systems with a pseudo-equilibrium point of focus type within its discontinuity line can be more easily done if the classical theory of normal forms is extended for such a case. This methodology allows to remove unessential terms in the expression of the vector field, preserving every point of the discontinuity line and so possible periodic orbits. The approach will be illustrated by considering a rather general family of linear-quadratic planar systems

• **Keywords:** Discontinuous Systems, Pseudo-Focus, Normal Forms

### References

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