



Homoclinic trajectories for piecewise smooth differential equations: Shilnikov theorem near a T -singularity.

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We study the existence of homoclinic and heteroclinic cycles in families of piecewise smooth differential equations in dimensions 2 and 3. We provide conditions for the existence and stability of these cycles, using the Filippov conventions over the discontinuity manifold. We also discuss the existence of limit cycles in these families and Shilnikov-like theorems, including the case where the system has a T -singularity.

Palavras-chave: *homoclinic orbits, Shilnikov theorem, limit cycles, piecewise smooth differential equations*

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