

Hyperbolic inverse mean curvature flow with forced term: evolution of plane curves

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Abstract

The motion of plane curves specified by hyperbolic inverse mean curvature with a constant force term is considered. We proved that this flow remains the convexity for any forced term. Furthermore, we give an example to understand how the constant forced term affects this hyperbolic inverse mean flow. Particularly, the asymptotic behavior of the flow under different initial conditions is discussed.

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