

Symmetries and solutions to dissipative hyperbolic geometric flow

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Abstract

Based on the Lie-symmetric method, we study the solutions of dissipative hyperbolic geometric flows on Riemann surfaces; In the process of simplification, the mixed equations are produced. And the hyperbolic equations are obtained under limited conditions. Considering the Cauchy problem of the hyperbolic equation, the existence and uniqueness conditions of the global solutions are obtained. Finally, the phenomenon of blow up is discussed.

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