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Summary: The nonlinear self-adjointness of the modified dissipative hyperbolic geometric flow equation is studied. Furthermore, based on the method of Ibragimov, we can obtain conservation laws and nonlocal conservation laws for the modified dissipative hyperbolic geometric flow equation.

MSC:
22E60 Lie algebras of Lie groups
35L70 Second-order nonlinear hyperbolic equations
35L45 Initial value problems for first-order hyperbolic systems
58J47 Propagation of singularities; initial value problems on manifolds

Keywords: nonlinear self-adjointness; conservation laws; modified dissipative hyperbolic geometric flow equation

Full Text: DOI

References: