

## Symbolic Computation and Abundant Travelling Wave Solutions to Modified Burgers' Equation

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**Abstract :** In this article, the novel  $(G'/G)$ -expansion method is successfully applied to construct the abundant travelling wave solutions to the modified Burgers' equation with the aid of computation. The method is reliable and useful, which gives more general exact travelling wave solutions than the existing methods. These obtained solutions are in the form of hyperbolic, trigonometric and rational functions including solitary, singular and periodic solutions which have many potential applications in physical science and engineering. Some of these solutions are new and some have already been constructed. Additionally, the constraint conditions, for the existence of the solutions are also listed.

**Keywords :** traveling wave solutions, NLPDE, computation, integrability

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