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Using Cubic Trigonometric B-Spline Method to Solve BBM-Burger Equation

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Abstract CubicTrigonometric B-spline method is used to solve Benjamin-Bona-Mahony-Burger equation (BBM-Burger) with appropriate initial and boundary conditions, the method based on Crank-Nicolson scheme for time integration and cubic trigonometric b-spline for space integration. The stability of method described by using von Neumann (Fourier) method. Comparisons between exact and suggested solution is used to illustrate the accuracy and efficiency of suggested method.

Keywords: Cubic Trigonometric B-spline method, Benjamin-Bona-ahony-Burger equation (BBM-Burger, Crank-Nicolson scheme.