

Title of the Paper

The name of First Author and The Name of second Author

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ABSTRACT

Here, please put your own Abstract. It should not be more than one PAGE.

Example of an Abstract:

The class of complex modified Korteweg-de Vries (CMKdV) equations has many applications. One form of the CMKdV equation has been used to create models for the nonlinear evolution of plasma waves, for the propagation of transverse waves in a molecular chain, and for a generalized elastic solid. Another form of the CMKdV equation has been used for the traveling-wave and for a double homoclinic orbit [1].

In this paper we introduce sequential and parallel split-step Fourier methods for numerical simulations of the above equation. The parallel methods are implemented on the Origin 2000 multiprocessor computer. Our numerical experiments have shown that the finite difference and the inverse scattering methods give accurate results and considerable speedup.

References

- [1] B. M. Herbst, M. J. Ablowitz and E. Ryan, Numerical homoclinic instabilities and the complex modified Korteweg-de Vries equation, *Comput. Phys. Commun.*, **65** (1991), 137-142.