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Extended sine-Gordon Equation Method and Its Application to Maccari's System SONG Li-Na and ZHANG Hong-Qing

Department of Applied Mathematics, Dalian University of Technology, Dalian 116024, China (Received: 2005-3-2; Revised: )

Abstract: An extended sine-Gordon equation method is proposed to construct exact travelling wave solutions to Maccari's equation based upon a generalized sine-Gordon equation. It is shown that more new travelling wave solutions can be found by this new method, which include bell-shaped soliton solutions, kink-shaped soliton solutions, periodic wave solution, and new travelling waves.

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Key words: Maccari's system, exact travelling wave solution, extended sine-Gordon

equation method

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