عنوان مقاله:

Existence and multiplicity of global classical solutions for approximate long water wave (ALWW) equations

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خلاصه مقاله:

In this paper, we investigate the Cauchy problem for long water wave equations for the existence and nonuniqueness of global classical solutions. We give sufficient conditions on the initial data of the considered equations that guarantee the existence and multiplicity of nonnegative global classical solutions. For this goal, a new topological approach to the fixed point theory of the sum of two operators in Banach spaces is used.

کلمات کلیدی:

Approximate long water wave equations, classical solution, Fixed point, initial value problem