

## Solitary Waves in Relativistic Electromagnetic Plasma

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Abstract: Solitary waves in relativistic electromagnetic plasmas are obtained numerically. The longitudinal momentum of electrons has been taken into account in the problem. It is found that in the moving frame with electromagnetic field propagating the solitary waves can exist in both cases, where the vector potential frequency is larger or smaller than the plasma characteristic frequency.

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Key words: laser-plasma interaction, nonlinear waves, solitons

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