## Physics > Optics

# Velocity-locked solitary waves in quadratic media

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We demonstrate experimentally the existence of three-wave resonant interaction solitary triplets in quadratic media. Stable velocity-locked bright-dark-bright spatial solitary triplets, determined by the balance between the energy exchange rates and the velocity mismatch between the interacting waves, are excited in a KTP crystal.

Subjects: **Optics (physics.optics)**; Pattern Formation and Solitons (nlin.PS); Exactly Solvable and Integrable Systems (nlin.SI)

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