

Absolute and convective instabilities of oblique dispersive shock waves

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Abstract:

Absolute and convective instabilities of oblique dispersive shock waves are studied in the context of the (2+1)-dimensional Gross-Pitaevskii (GP) equation. The transition between absolute and convective instabilities is analyzed and compared with analytic results based on the suitable jump conditions and with direct numerical simulations of the GP equation. This is joint work with Mark Hoefer.