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Spectral analysis of the effects of wind and damping on rogue waves

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Recently a higher order
nonlinear Schr\"odinger (HONLS) equation
was derived which is Hamiltonian \citep{gram10}.
We investigate the effects of wind and damping on the development of
rogue waves
and downshifting by adding additional terms to this new HONLS equation.
The inverse spectral theory of the NLS equation is used to investigate
the statistical properties and likelihood of damped, wind
driven rogue waves with respect to
changes in the
nonlinear spectrum. The likelihood of rogue waves is also examined
in relation to the changes in the Fourier spectrum.