1064-35-156 **Erik Wahlén*** (erik.wahlen@math.lu.se), Centre for Mathematical Sciences, Lund University, PO Box 118, 22100 Lund, Sweden. *A variational method for quasilinear dispersive equations.*

A classical method for finding solitary waves of semilinear dispersive equations is to minimise the energy subject to the constraint of fixed momentum. I will describe how this method can be extended to some cases which are quasilinear in the sense that the quadratic part of the energy doesn't control the super-quadratic part. As a result of the method one also obtains the stability of the set of minimisers. The stability is however conditional on the well-posedness theory for the evolution problem. I will explain the method in detail for a model equation and then describe a few applications to water waves with surface tension.

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