

# **A non-periodic and asymptotically linear indefinite variational problem in $\mathbb{R}^N$**

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We consider the nonlinear Schrodinger equation in  $\mathbb{R}^N$ , where  $V$  changes sign and  $f$  is an asymptotically linear function at infinity, with  $V$  non-periodic in  $x$ . The existence of a solution is established employing spectral theory, a classical linking theorem, interaction between translated solutions of the problem at infinity.