

NEHARI MANIFOLD AND SCHRÖDINGER EQUATION

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We study the Schrödinger equation $-\Delta u + V(x)u = f(x, u)$ in \mathbb{R}^N . We assume that f is superlinear but of subcritical growth and $f(x, u)/|u|$ is nondecreasing. We also assume that V and f are periodic. We show that these equations have a ground state and that there exist infinitely many solutions if f is odd in u .

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