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Nota di contenuto	1 Mountain pass theorem -- 1.1 Differentiable functionals -- 1.2 Quantitative deformation lemma -- 1.3 Mountain pass theorem -- 1.4 Semilinear Dirichlet problem -- 1.5 Symmetry and compactness -- 1.6 Symmetric solitary waves -- 1.7 Subcritical Sobolev inequalities -- 1.8 Non symmetric solitary waves -- 1.9 Critical Sobolev inequality -- 1.10 Critical nonlinearities -- 2 Linking theorem -- 2.1 Quantitative deformation lemma -- 2.2 Ekeland variational principle -- 2.3 General minimax principle -- 2.4 Semilinear Dirichlet problem -- 2.5 Location theorem -- 2.6 Critical nonlinearities -- 3 Fountain theorem -- 3.1 Equivariant deformation -- 3.2 Fountain theorem -- 3.3 Semilinear Dirichlet problem -- 3.4 Multiple solitary waves -- 3.5 A dual theorem -- 3.6 Concave and convex nonlinearities -- 3.7 Concave and critical nonlinearities -- 4 Nehari manifold -- 4.1 Definition of Nehari manifold -- 4.2 Ground states -- 4.3 Properties of critical values -- 4.4 Nodal solutions -- 5 Relative category -- 5.1 Category -- 5.2 Relative category -- 5.3 Quantitative deformation lemma -- 5.4 Minimax theorem -- 5.5 Critical nonlinearities -- 6 Generalized linking theorem -- 6.1 Degree theory -- 6.2 Pseudogradient flow -- 6.3 Generalized linking theorem -- 6.4 Semilinear Schrödinger equation -- 7 Generalized Kadomtsev-Petviashvili equation -- 7.1 Definition of solitary waves -- 7.2 Functional setting -- 7.3 Existence of solitary

waves -- 7.4 Variational identity -- 8 Representation of Palais-Smale sequences -- 8.1 Invariance by translations -- 8.2 Symmetric domains -- 8.3 Invariance by dilations -- 8.4 Symmetric domains -- Appendix A: Superposition operator -- Appendix B: Variational identities -- Appendix C: Symmetry of minimizers -- Appendix D: Topological degree -- Index of Notations.
