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Alfonso Vignoli* (vignoli@mat.uniroma2.it). *An extension of the notion of zero-epi maps to the context of topological spaces.*

We introduce the class of hyper-solvable equations whose concept may be regarded as an extension to the context of topological spaces of the known notion of 0-epi maps. After collecting some notation, definitions and preliminary results we give a homotopy principle for hyper-solvable equations. We provide examples showing how these equations arise in the framework of Leray-Schauder degree, Lefschetz number theory and essential compact vector fields in the sense of A. Granas. (Received September 16, 2008)