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Dan D. Pascali* (dp39@nyu.edu), Courant Institute, New York University, 251 Mercer Street, New York, NY 10012-1185. *An approximation-solvability for variational inequalities*. Preliminary report.

The approximation-proper (A-proper) mappings have been created by W.V. Petryshyn in order to obtain the solutions of general operator equations in infinite-dimensional spaces as limits of related finite-dimensional problems, this is the meaning of approximation solvability. Our purpose is to define and characterize a class of operators suited for the approximation-solvability of elliptic variational inequalities. These mappings inherit some properties of pseudomonotone operators. (Received September 27, 2005)