1067-47-1515   **Dan D. Pascali*** (`dp39@nyu.edu`), Courant Institute, New York University, 251 Mercer St, New York, NY 10012-1185. *A simple proof of Fredholm alternative for A-proper mappings.*

The characterization of Fredholm operators and a proof of Fredholm alternative by means of finite-dimensional linear algebra, due to A.G. Ramm in 2001, is extended to nonlinear A-proper mappings. The results are related to the equations involving Petryshyn operators, with applications to semilinear elliptic problems without oddness conditions. (Received September 21, 2010)