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Adrian Petrusel*, Kogalniceanu Street, no. 1, 400084 Cluj-Napoca, Cluj, Romania, and
Gabriela Petrusel, Kogalniceanu Street, no. 1, 400084 Cluj-Napoca, Cluj, Romania. *Existence and approximation for the fixed points of some nonself operators.*

In this talk we will present some fixed point results for nonself operators in complete metric spaces. We will discuss some existence and approximation theorems for the fixed points of nonself operators in a metric and a topological setting. The case of single-valued and multi-valued operators will be considered. Some applications are also suggested. The talk is based on several papers such as:

[1] A. Petrusel: Local fixed point results for graphic contractions, J. Nonlinear Variational Anal. 3(2019), no. 2, 141-148

[2] A. Petrusel, R. Trusca: Iterative approximations for non-self operators, Proc. 21st Intern. Symposium on Symbolic and Numer. Algorithms for Sci. Computing (SYNASC) 2019, IEEE Computer Soc. Conference Publ. Serv. 2019, 307-310

[3] A. Petrusel, G. Petrusel, J.-C. Yao: Multi-valued graph contraction principle with applications, Optimization, 69 (2020), no. 7-8, 1451-1556

[4] A. Petrusel, Radu Precup, Marcel-Adrian Serban: On the approximation of fixed points for non-self mappings on metric space, Discrete and Continuous Dynamical Systems-Series B, 25(2020), No. 2, 733-747 (Received August 04, 2020)