# Schauder's type of fixed point theorem in locally convex space

Andrzej Nowakowski[1] and Robert Plebaniak[1]

[1]University of Lodz Faculty of Mathematics and Computer Science

August 19, 2020

## Abstract

We introduce the concept of generalized norm in linear vector spaces which extends the classical norm. Using that generalized norm we provide a generalization of Schauder's type theorem. Next we give some applications of this theorem to find solutions of initial value problems.

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