

## **A friendly introduction to condensing operators**

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**Abstract:** Condensing operators contain both compact and contracting operators as special cases. Therefore Darbo's celebrated fixed point theorem [1] and Sadovskij's generalization [2] bridge the gap between Schauder's fixed point principle and the Banach-Caccioppoli contraction mapping theorem. The aim of this talk is to illustrate the usefulness of the Darbo-Sadovskij theorem by means of a large variety of applications, ranging from integral equations over boundary value problems to spectral theory, for details see [3]. The presentation is throughout elementary and requires only a modest background in functional analysis and operator theory.

**Keywords:** measure of noncompactness, condensing operator, fixed point theory

**References:**

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