

# Iterative Regularization in Banach spaces

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We will discuss an iterative method of relaxed Landweber type for the regularization of the solution operator of the operator equation  $F(x) = y$ , where  $X$  and  $Y$  are Banach spaces and  $F$  is a (non-)linear, continuous operator mapping between them. We assume that the Banach space  $X$  is smooth and convex of power type. We will show that under the so-called approximate source conditions convergence rates may be achieved.

The presented results are joint work with Torsten Hein, University of Chemnitz.