On the theory of fixed point theorems for convex contraction mappings

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ABSTRACT.

Based on the concepts and problems introduced in [Rus, I. A., The theory of a metrical fixed point theorem: theoretical and applicative relevances, Fixed Point Theory, 9 (2008), No. 2, 541–559], in the present paper we consider the theory of some fixed point theorems for convex contraction mappings. We give some results on the following aspects: data dependence of fixed points; sequences of operators and fixed points; well-posedness of a fixed point problem; limit shadowing property and Ulam-Hyers stability for fixed point equations.

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Received: 30.08.2014; In revised form: 07.05.2015; Accepted: 09.05.2015
2010 Mathematics Subject Classification. 47H10, 54H25.
Key words and phrases. Fixed point, Picard operator, weakly Picard operator, Bessaga operator, Janos operator, data dependence of the fixed points, sequences of operators and fixed points, well-posedness of the fixed point problem, limit shadowing property, Ulam-Hyers stability.
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