ON EKELAND’S VARIATIONAL PRINCIPLE IN \(b\)-METRIC SPACES

MONICA BOTA, ANDREA MOLNÁR AND CSABA VARGA

Department of Mathematics, Babeș-Bolyai University
1, Kogălniceanu Str., 400084, Cluj-Napoca, Romania.
E-mails: bmonica@math.ubbcluj.ro mr.andi16@yahoo.com csvarga@cs.ubbcluj.ro

Abstract. In this paper we prove a version of Ekeland’s variational principle in \(b\)-metric spaces and, as a consequence, we obtain a Caristi type fixed point theorem.

Key Words and Phrases: Variational principle, fixed point, Caristi type theorem, \(b\)-metric space.

2010 Mathematics Subject Classification: 47H10, 54H25.

REFERENCES


Received: December 12, 2009; Accepted: March 3, 2010.