τ-DISTANCE IN A GENERAL TOPOLOGICAL SPACE (X, τ) WITH APPLICATION TO FIXED POINT THEORY

M. AAMRI AND D. EL MOUTAWAKIL

ABSTRACT. The main purpose of this paper is to define the notion of a τ-distance function in a general topological space (X, τ). As application, we get a generalization of the well known Banach's fixed point theorem.

A.M.S. (MOS) Subject Classification Codes. 54A05, 47H10, 54H25, 54E70

Key Words and Phrases. Hausdorff topological spaces, Topological spaces of type F, symmetrizable topological spaces, Fixed points of contractive maps

Department of Mathematics and Informatics, University Hassan-II Mohammedia,
Casablanca , Morocco
E-mail Address: d.elmoutawakil@math.net

Typeset by $\mathcal{AMS}$-TEX