

Tomasz Kubiak

A strengthening of the Katětov-Tong insertion theorem

Comment.Math.Univ.Carolinae 34,2 (1993) 357-362.

Abstract: Normal spaces are characterized in terms of an insertion type theorem, which implies the Katětov-Tong theorem. The proof actually provides a simple necessary and sufficient condition for the insertion of an ordered pair of lower and upper semicontinuous functions between two comparable real-valued functions. As a consequence of the latter, we obtain a characterization of completely normal spaces by real-valued functions.

Keywords: normal space, semicontinuous functions, insertion, limit functions, completely normal space

AMS Subject Classification: 54D15, 54C30