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Ryo Ohashi* (ryoohashi@kings.edu), Department of Mathematics, King's College, Wilkes Barre, PA 18711. *Embedding a Connected Topological Group into a Connected Group*. Preliminary report.

Let (G, \cdot, τ) be a topological group which may be a totally disconnected. In the first part, we will see that it is possible to embed G into some connected topological group $(\widehat{G}, \bullet, \widehat{\tau})$ which is proved by Hartman and Mycielski.

Now, suppose the group G is a metrizable whose metric is denoted by ρ , hence τ and ρ -metric topologies are equivalent. According to Hartman and Mycielski, the ρ -metric induces a metric function on \widehat{G} which we denote by d . By their paper, $\widehat{\tau}$ and d -metric topologies are supposed to be equivalent. However, I will show a counter example to disprove their claim and will modify their results in order to obtain the two equivalent topologies on \widehat{G} . (Received September 17, 2005)