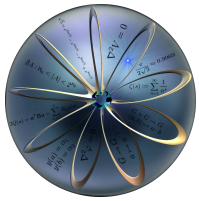

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inverse function theorem (topological spaces)

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Let X and Y be topological spaces, with X compact and Y Hausdorff. Suppose $f : X \to Y$ is a continuous bijection. Then f is a homeomorphism, i.e. f^{-1} is continuous.

Note if Y is a metric space, then it is Hausdorff, and the theorem holds.