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In quest of weaker connected topologies

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Abstract: We study when a topological space has a weaker connected topology. Various sufficient and necessary conditions are given for a space to have a weaker Hausdorff or regular connected topology. It is proved that the property of a space of having a weaker Tychonoff topology is preserved by any of the free topological group functors. Examples are given for non-preservation of this property by "nice" continuous mappings.
The requirement that a space have a weaker Tychonoff connected topology is rather strong, but we show that it is difficult to construct spaces which would contain no infinite subspaces with a weaker connected $T_{3\frac{1}{2}}$-topology.

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