

Title: Connected compactifications

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Abstract: This thesis deals with connected compactifications of specific Tychonoff spaces. In particular, we are interested in the maximal elements with respect to the partial order over the set of all connected compactifications of a space. First we characterize maximal connected compactifications of spaces containing only finitely many components. We mention examples of spaces which have no connected compactification. Further we study connected compactifications of the rational numbers. We give a construction of a compactification analogical to the construction of the Čech-Stone compactification and we show a necessary and sufficient condition for its connectedness and maximality.

Keywords: connected space, compact space, connectification, compactification