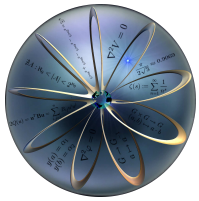

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T0 space

Canonical name	T0Space
Date of creation	2013-03-22 12:18:12
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Entry type	Definition
Classification	msc 54D10
Synonym	Kolmogorov space
Synonym	Kolmogoroff space
Related topic	Ball
Related topic	T1Space
Related topic	T2Space
Related topic	RegularSpace
Related topic	T3Space
Defines	T0

A topological space (X, τ) is said to be T_0 (or to satisfy the T_0 axiom) if for all distinct $x, y \in X$ there exists an open set $U \in \tau$ such that either $x \in U$ and $y \notin U$ or $x \notin U$ and $y \in U$.

All `http://planetmath.org/T1Space`T_1 spaces are T_0. An example of T_0 space that is not T_1 is the 2-point Sierpinski space.