Info

This note, that was found here, as a part of a collection
is written (completely with human hands) by Rupadarshi Ray,
was created on January 3, 2026 7:42:17 PM,
was last modified on January 3, 2026 7:48:00 PM, and
was exported on September 7, 2026 3:24:50 PM.

Convergence for nets in a topological space

Let X be a topological space. A net $\{x_\alpha\}_{\alpha\in J}$ in X is a function from a directed set $(J, \preccurlyeq)$ into X

$$\begin{aligned} x_- : (J, \preccurlyeq) &\to X \\ \alpha &\mapsto x_\alpha \end{aligned}$$

A net $\{x_\alpha\}_{\alpha\in J} \subseteq X$

Current note has 0 direct children and 0 total descendants.

- structures based on sets
  - Topological spaces
    - Convergence for nets in a topological space

And it has 29 siblings.

- structures based on sets
  - Topological spaces
    - Group action on topological spaces
    - Discrete subgroup acting on coset space
    - Basis and subbasis for a topology
    - Principal G-bundles over topological spaces

$$G \curvearrowright P \to X$$

    - Vector bundles over topological spaces
    - Closure of a subset of topological space
    - Locally compact and 2-countable Hausdorff topological spaces are paracompact with countable refinement
    - Covering dimension of topological spaces
    - $\mathrm{End}\mathsf{Top}(X, Y)$
    - Eilenberg–Steenrod functors

$$(H_n : \mathsf{Top} \times \mathsf{Top} \to \mathsf{Ab}, \partial_n)$$

    - Local fields
    - Local fields of characteristic 0
    - Topological groups
    - Continuous group action on a topological space
    - Intersection of open, dense subsets of a topological space
    - Local topological spaces
    - Covering space of a topological space
    - Borel measures on a topological space
    - Convergence for nets in a topological space
    - Loops and a open cover of a topological space
    - Paths in a topological space
    - Product of topological spaces
    - Ringed topological spaces
    - Sheaf on open sets of a topological space
    - Closed subsets of a topological space
    - Discrete subsets of topological spaces
    - Types of topological spaces
    - Locally compact Hausdorff spaces
    - Topological vector spaces over $\mathbb{R}$ or $\mathbb{C}$