ultranet

Canonical name	Ultranet
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Entry type	Definition
Classification	msc 54A20
Synonym	universal net
Related topic	Ultrafilter
Related topic	EveryNetHasAUniversalSubnet

A net $(x_a)_{a \in A}$ on a set X is said to be an **ultranet** or **universal net** if whenever $E \subseteq X$, (x_a) is either eventually in E or eventually in $X \smallsetminus E$.

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- It can be shown that every net has a universal subnet.

- When X is a locally compact topological space, a universal net in X is either convergent or it "goes to " (it eventually leaves every compact subset).

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