Definition

Let $\mathbf{F} = (F, +, \cdot)$ be a field. A *topological field* is a tuple $(\mathbf{F}, \mathcal{T})$, where $(F, \mathcal{T})$ is a topological space and the field operationsare continuous.

Topological Fields

Fields

Rational Numbers   Rings

Integer Arithmetic

Natural Multiplicative Identity   Natural Additive Identity

Identity Elements   Arithmetic

Natural Powers   Integer Products   Integer Sums

Operations   Natural Products   Integer Numbers

Functions   Equivalence Relations   Natural Sums

Relations   Recursion Theorem

Ordered Pair Projections   Peano Axioms

Set Products   Natural Induction

Ordered Pairs   Set Powers   Natural Numbers

Partitions   Unordered Triples   Intersection of Empty Set   Successor Sets

Set Intersections   Pair Unions   Set Symmetric Differences

Pair Intersections   Set Unions   Set Complements

Unordered Pairs   Empty Set   Set Differences

Set Specification

Set Equality

Set Inclusion

Deductions

Quantified Statements

Logical Statements

Statements

Identities   Sets

Names

Letters   Objects

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