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manifolds

The only division rings $(F, +, \times)$ which are also smooth $\mathbb{R}$ -manifolds (compatible) possible are $\mathbb{R}, \mathbb{C}, \mathbb{H}, \mathbb{O}$. ^[1]

used terminology	common terminology	
manifold	manifold without boundary	Man
manibound	manifold with boundary (possibly empty)	Man(bd)
manicorner	manifold with corners	Man(cr)
conifold	conical manifold	
orbifold	orbifold without boundary	Orb
orbifolb?	orbifold with boundary (possibly empty)	Orb(bd)

- $\mathbb{R}$ -manifolds
 - [sett.Man.R Top > ^debbb6](#)
 - PL manifold
 - $\mathcal{C}^k$ -manifold
 - [smooth \$\mathbb{R}\$ -manifold](#)
 - [sett.Man.R Homog > ^dd12c7](#)
 - [sett.Man.R spin > ^0bd4c6](#)
 - [sett.Man.R Sp closed > ^jrmraz](#)
 - [sett.Man.R Toric > ^86349b](#)
 - [sett.Man.R group > ^289de6](#)
 - [sett.Man.R O > ^a170b8](#)
 - [sett.Man.R O sub > ^c103ce](#)
 - [sett.Man.R norm > ^812cd8](#)
 - [sett.Man.R Poisson > ^ec352d](#)
 - [sett.Man.R Sp closed-multi > ^d961fb](#)
 - [sett.Man.R connection](#) *Manifold with a connection*
 - [sett.Man.R J](#) *Almost complex manifold*
 - [Manifolds with compatible triples](#)
- $\mathbb{C}$ -manifold [complex manifold](#)
 - [sett.Man.C group](#)
 - [Kahler manifolds](#)
- manifolds based on topological vector spaces over $\mathbb{R}, \mathbb{C}$
 - Banach manifold
 - Frechet manifold
- $\mathbb{H}$ -manifold [Quaternionic manifold - Wikipedia](#) ^[2]
- $\mathbb{O}$ -manifold

- Locally ringed spaces* are far too general?

- analytic k -manifolds where k is a [field](#) with a absolute value which is metric complete. ^[3] apart from $k = \mathbb{R}, \mathbb{C}$
 - $\mathbb{Q}_p$
 - $\mathbb{Q}$ -manifold?

- [Supermanifold - Wikipedia](#)

1. [Are there only two smooth manifolds with field structure: real numbers and complex numbers? - MathOverflow](#) $\leftrightarrow$

2. [dg.differential geometry - Is there a reasonable definition of an octonionic manifold? - MathOverflow](#) $\leftrightarrow$

3. [3.dvi \(ucla.edu\)](#), $\leftrightarrow$