

Info

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Knots in $\mathbb{R}^3$ or S^3

Definition. Knots in $\mathbb{R}^3$

A **wild knot** is a topological embedding of S^1 in $\mathbb{R}^3$, upto

- **ambient homeomorphism**
- **ambient isotopy**

A **tame knot** is a smooth embedding of S^1 in $\mathbb{R}^3$, upto above equivalences.

A tame knot

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is equivalent to a piecewise linear topological embedding of circle S^1 in $\mathbb{R}^3$.

- [Knot and link diagrams on \$\mathbb{R}^2\$](#)
- [space.knots.R3.Sifet](#)
- [Genus of a knot](#)
- [Fundamental group of the complement of the knot](#)
- [Linking number invariant of links](#)
- [Complement of knots in \$\mathbb{R}^3\$ or \$S^3\$](#)

- Lickorish chapter 5
- [W.B.Raymond Lickorish - An Introduction to Knot Theory \(Graduate Texts in Mathematics, 175\)-Springer \(2012\).pdf > page=126](#)

Knots in $\mathbb{R}^3$

File(2)	title	" 200 ""	polyJones	Fox3colour
stem.knots.R3.3 1 left	Left trefoil knot	200 ,	$-t^4 + t^3 + t$	3^3
stretchy.3 1 right	Trefoil 3_1 knot	200 ,	-	-

Current note has 5 direct children and 5 total descendants.

- [stem](#)
 - [Knots](#)
 - [Knots in \$\mathbb{R}^3\$](#)
 - [Left trefoil knot](#)
 - [Complement of knots in \$\mathbb{R}^3\$ or \$S^3\$](#)
 - [Genus of a knot](#)
 - [Fundamental group of the complement of the knot](#)
 - [Linking number invariant of links](#)

And it has 3 siblings.

- [stem](#)
 - [Knots](#)
 - [Braids](#)
 - [Knot and link diagrams on \$\mathbb{R}^2\$](#)
 - [Knots in \$\mathbb{R}^3\$](#)