

Prime specification

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November 13, 2019

First revision: November, 2019

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<https://github.com/bayship-org/mathematics>

1 Prerequisite definitions

[GitHub:Minor_of_memBer.pdf](#)

In the article above, in its first two pages, all prerequisite definitions for this article are given. Especially, the second page of the above article defines that:

- A **memBer** as a member of a set.
- Deep members y of a memBer x is calculated **the deep number relative to x** .
- Two memBers (x, y) are said (x is a **minor** of y).

2 Notations

Definition 2.1.

"And" is also written as " $_{and}\wedge$ ".

"Or" is also written as " $_{or}\vee$ ".

$(x \text{ }_{and}\wedge y)$ is not commutative because y possibly depends on x .

$(x \text{ }_{or}\vee y)$ is not commutative because y possibly depends on $\neg x$. ■

3 Order consistent

Definition 3.1 (Order consistent).

Take $\forall L$ as a logical expression such that ($*1$ implies $*2$).

Then L is said order consistent.

1. Take $\forall(f, p, q, r, d)$
such that $(\text{*s1} \text{ and } \wedge \text{ and } \wedge \text{*s3})$ holds.
- s1. L defines (f, d) as a function f and a partial order d .
- s2. $\{p, q, r\} \subset \text{domain}(f)$.
- s3. In terms of d ,
 $p < q < r$.
2. In terms of d ,
 $f(p) \leq f(q) \leq f(r) \vee f(r) \leq f(q) \leq f(p)$. ■

4 Consequent context of antecedent context

Take $\forall D$ as a definition. Then D is said an antecedent context if: D is inde- 1
pendent. 2
Take $\forall A$ as an antecedent context. 3
Take $\forall D$ as a definition. Then D is said a consequent context of A if: (if D is 4
dependent of at most A). 5
Take $\forall C$ as a consequent context of A . 6
7
Take $\forall x$ as a variable of C . Then x is said **specified for all instances of** 8
 A if (9
 x is specified if you assume that all variables of A are specified). 10
For example, let A define $\forall n : \in \mathbb{N}$ and C define $x := n + 1$. Then x is specified 11
for all instances of A because if n had been specified in A then x is specified. 12
13

5 Conjecture 14

Conjecture 5.1 (Conjecture). 15
Take $\forall(n, X, T, M)$ as the Euclidean space (X, T, M) of n -dimension where X 16
is the space, T is the topology and M is the metric table. 17
As a remark, for the set of all orthogonal coordinate systems for the space, no 18
absolute member is defined. 19
Let $A := (n, X, T, M)$. 20
Take all (C, x) such that $(\text{*1} \text{ and } \wedge \text{*2}$ ■*3). 21
Then x is a minor of T . 22

1. C is a consequent context C of A . 23
2. x is a variable of C . 24
3. C is order consistent. ■ 25

6 Examples 26

This section just gives examples of substituting actual values into variables of the main conjecture. 27
28
29

Definition 6.1 (Unknot). 30

Refer to the main conjecture for (n, X, T, M) . 31

For the main conjecture, this example substitutes values 32

into (n, x) as $(*0 \text{ and } \wedge \dots \text{ and } \wedge *7)$. 33

0. Let $n := 3$. 34

1. Take $\forall k1$ such that (35

$\text{Space}(k1) \subset X \text{ and } \wedge$ 36

$k1$ is said an unknot on (X, T, M) 37

).

2. Let $K := \{k \mid ((T, k), (T, k1)) \text{ are isomorphic} \}$. 39

3. Take $\forall k : \in K$. 40

4. $f1(k) := \{d \mid d \text{ is a proper knot diagram of } k\}$. 41

5. $f2(k) := \{r \mid$ 42

$\exists d : \in f1(k) \text{ and } \wedge$ 43

r is the number of crossings on d 44

}.

6. $f(k) :=$ "the maximum number of $f2(k)$. 46

7. $x := \{k \mid f(k) = f(k1)\}$. 47

■ 48