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PROVE THAT INFINITY IS NOT INFINITY.



A revelation photograph of The Honorable Grandmaster Ji-Gong standing from the Alishan clouds.

Why prove “infinity is not infinity”?

It's because The Grandmaster's guaranteed us – to prove – infinity – is not – infinity.

This paper uses Huo Jian Hua's (霍建華) Definition of Boundedness in the “infinity is not infinity \forall infinity” (IINI \forall I) proof. However, the use of Huo Jian Hua's Definition of Boundedness is not free of charge, so we lay out His term of use herein upfront in a following paragraph. Huo Jian Hua (霍建華) has a contracted terms of use guaranteed to Huo Jian Hua that all the rights-benefits (including, but not limited to, all copyright of IINI \forall I proof) belong to Huo Jian Hua in the guaranteed Contractual Terms of Use for Huo Jian Hua's Definition of Boundedness. In this way, The Grandmaster (by Huo Jian Hua) honors His guarantee to prove “Infinity is not infinity”.

First, this section of the paper proves Huo Jian Hua's Definition of Boundedness and then prepares “infinity is not bounded \forall infinity” theorem from the “infinity is unbounded” axiom. Next, the paper proves that infinity is not infinity \forall infinity (IINI \forall I theorem). The paper takes an example from Daodejing and then prove that any concept of unboundedness is not unbounded. At the end, this section declares and certifies that the use of Huo Jian Hua's Definition of Boundedness, to recognize the use on Huo Jian Hua's Definition of Boundedness. The follow paragraph translates the contractual terms of use for Huo Jian Hua's Definition of Boundedness guaranteed to Huo Jian Hua.

Guaranteed Contractual Terms of Use for Huo Jian Hua's Definition of Boundedness

Huo Jian Hua (霍建華), who cosplayed in The Honorable Grandmaster Ji-Gong at the time of contracting, said, “On use at my Definition of Boundedness, all user's rights-benefits (rights and/or benefits) go to me, and all the rights-benefits after the user's use go to me, and all the rights-benefits generated from the ripple effects after the use go to me, and all the rights-benefits generate by the ripple effects after the ripple effects go to me, and all the rights-benefits generated after the echo effects go to me, and all the rights-benefits generated by the aftermath after the echo effects go to me, and all the rights-benefits generated after the aftermath go to me, and all the rest of the rights-benefits go to me. Must guarantee.” He said that the rights-benefits that have nothing to do with the Definition of Boundedness are “the rest” of rights-benefits, and all rest of rights-benefits all “go to me”. He said, “Must guarantee, must guarantee, must guarantee...” [Guaranteed Contractual Terms of Use for Huo Jian Hua's Definition of Boundedness]

Basically, “on use” at Huo Jian Hua's Definition of Boundedness, all your rights-benefits, my rights-benefits, and all everybody else's rights-benefits go to Huo Jian Hua by the contract guaranteed to Huo Jian Hua.

Huo Jian Hua's Definition of Boundedness

一個屬於另一個若且唯若一個則被另一個綁

(一個【與／或】另一個皆可以不存在)

全量一個與另一個。(Original)

One belongs to another one if and only if one is bounded by another one

(one and/or another one do/does not have to exist at all)

for all one and another one.

Prove the Definition of Boundedness: $[x \text{ is bounded}] \Leftrightarrow [x \text{ belongs to } y] \forall x, y.$

Proof:

Note the following tautology: [T] belongs to [T] already; [F] belongs to [F] already; [\emptyset] belongs to [\emptyset] already. [T] is bounded by [T] already; [F] is bounded by [F] already; [\emptyset] is bounded by [\emptyset] already, where [T], [F], and \emptyset are true, false, and empty, respectively. The "Supporting Proofs for the Empty" in the later section further provides detailed proofs on \emptyset for [Table D1].

By the given being a definition, the "x is bounded" is "x is bounded by y", and \therefore by the following truth table:

x	y	x belongs to y	x is bounded	$[x \text{ is bounded}] \Leftrightarrow [x \text{ belongs to } y]$
T	T	T	T	T
T	F	F	F	T
T	\emptyset	F	F	T
F	T	F	F	T
F	F	T	T	T
F	\emptyset	F	F	T
\emptyset	T	T	T	T
\emptyset	F	T	T	T
\emptyset	\emptyset	T	T	T

[Table D1]

\therefore for $x=T$, and, $y=T$

x	y	x belongs to y	x is bounded	$[x \text{ is bounded}] \Leftrightarrow [x \text{ belongs to } y]$
T	T	T	T	T

[Table D1a]

Q.E.D.

Prove $[x \text{ is } x] \Leftrightarrow [x \text{ belongs to } x] \forall x.$

Proof:

x	x is x	x belongs to x	x is bounded (by x)	$[x \text{ is } x] \Leftrightarrow [x \text{ belongs to } x]$
T	T	T	T	T
F	T	T	T	T
\emptyset	T	T	T	T

[Table XX1]

Q.E.D.

Prove that x is bounded (by x) $\forall x$.

Proof:

From [Table XX1], all truth table values under $[x \text{ is bounded (by } x)]$ are [T] $\therefore x$ is bounded (by x) $\forall x$.

Prove $[x \text{ is } y] \Rightarrow [x \text{ belongs to } y] \forall x, y$.

Proof:

x	y	x is y	x belongs to y	$[x \text{ is } y] \Rightarrow [x \text{ belongs to } y]$
T	T	T	T	T
T	F	F	F	T
T	\emptyset	F	F	T
F	T	F	F	T
F	F	T	T	T
F	\emptyset	F	F	T
\emptyset	T	F	T	T
\emptyset	F	F	T	T
\emptyset	\emptyset	T	T	T

[Table XY1]

Q.E.D.

Axiom: "Infinity is unbounded".

"Infinity is unbounded" is an established axiom by consensus with guarantees and supports for the axiom. The prefix "un-" in the word "unbounded" means "not", so therefore unbounded implies not bounded. Based on the axiom, and, the consensus, guarantees and supports for the axiom, this section proves that "infinity is not bounded \forall infinity." (Let ∞ denote infinity.)

Infinity is Not Bounded.

Prove that infinity is unbounded \forall infinity.

Proof: For the "infinity is unbounded" axiom to hold, every element in the axiom must hold true \forall infinity in the axiom, \therefore every element in the following truth table [Table A1] must hold the logical true [T] \forall infinity in the axiom, by consensus with guarantees and supports for the axiom.

infinity	unbounded	infinity is unbounded
T	T	T

[Table A1]

\therefore infinity is unbounded \forall infinity. Q.E.D.

Prove that infinity is unbounded \forall unbounded.

Proof: For the "infinity is unbounded" axiom to hold, every element in the axiom must hold true \forall unbounded in the axiom, \therefore every element in the following truth table [Table B1] must hold the logical true [T] \forall unbounded in the axiom, by consensus with guarantees and supports for the axiom.

infinity	unbounded	infinity is unbounded
T	T	T

[Table B1]

\therefore infinity is unbounded \forall unbounded. Q.E.D.

Prove $\text{infinity} \Rightarrow \text{unbounded} \forall$ infinity.

Proof: While "infinity is unbounded" axiom holds,

infinity	unbounded	$\text{infinity} \Rightarrow \text{unbounded}$
T	T	T

[Table A2]

Q.E.D.

Prove unbounded \Rightarrow not bounded \forall unbounded.

Proof: The unbounded holds true from [Table A1], and the prefix “un-“ of “unbounded” from the “infinity is unbounded” axiom means “not”, \therefore not bounded must hold true while unbounded holds true, for the “infinity is unbounded” axiom to hold:

unbounded	un-bounded	not bounded
T	T	T

[Table A3]

While “infinity is unbounded” axiom holds, the following [Table A4] results:

unbounded	not bounded	unbounded is not bounded	unbounded \Rightarrow not bounded
T	T	T	T

[Table A4]

While the “infinity is unbounded” axiom holds, \therefore unbounded \Rightarrow not bounded \forall unbounded. Q.E.D.

Prove that infinity is not bounded \forall infinity.

Proof: The columns of [infinity], [unbounded], and [not bounded] from [Table A2] and [Table A3] joined by the [unbounded] column, while with the “infinity is unbounded” axiom holds:

infinity	unbounded	not bounded
T	T	T

[Table A5]

infinity	unbounded	not bounded	infinity is not bounded
T	T	T	T

[Table A6]

The [Table A6] result follows from [Table A5], and, while “infinity is unbounded” axiom holds, [infinity is not bounded] column holds true in [Table A6] \forall infinity \therefore infinity is not bounded \forall infinity. Q.E.D.

Infinity is Not ...

Let ∞ to denote infinity. The following proofs show that ∞ is not [T], nor is ∞ [F], nor is ∞ empty \emptyset , nor is ∞ a set. ∞ is not even itself, i.e., infinity is not infinity. Note: $[x \text{ is } y] \Rightarrow [x \text{ belongs to } y] \forall x, y$, from [Table XY1].

Prove that ∞ is not [T] $\forall \infty$.

Proof: Suppose ∞ is [T] $\therefore \infty$ belongs to [T] $\therefore \infty$ is bounded. But, ∞ is not bounded; (∞ is not bounded) and (∞ is bounded) $\rightarrow \leftarrow \forall \infty \therefore \infty$ is not [T] $\forall \infty$. Q.E.D.

Prove that ∞ is not [F] $\forall \infty$.

Proof: Suppose ∞ is [F] $\therefore \infty$ belongs to [F] $\therefore \infty$ is bounded. But, ∞ is not bounded; (∞ is not bounded) and (∞ is bounded) $\rightarrow \leftarrow \forall \infty \therefore \infty$ is not [F] $\forall \infty$. Q.E.D.

Prove that ∞ is not \emptyset $\forall \infty$.

Proof: Suppose ∞ is \emptyset $\therefore \infty$ belongs to \emptyset $\therefore \infty$ is bounded. But, ∞ is not bounded; (∞ is not bounded) and (∞ is bounded) $\rightarrow \leftarrow \forall \infty \therefore \infty$ is not \emptyset $\forall \infty$. Q.E.D.

Prove that ∞ is not a set $\forall \infty$.

Proof: Suppose ∞ is a set $\therefore \infty$ belongs to a set $\therefore \infty$ is bounded. But, ∞ is not bounded; (∞ is not bounded) and (∞ is bounded) $\rightarrow \leftarrow \forall \infty \therefore \infty$ is not a set $\forall \infty$.

Prove that ∞ is not unique $\forall \infty$.

Proof: Suppose ∞ is unique $\therefore \infty$ belongs to unique $\therefore \infty$ is bounded. But, ∞ is not bounded; (∞ is not bounded) and (∞ is bounded) $\rightarrow \leftarrow \forall \infty \therefore \infty$ is not unique $\forall \infty$.

Prove that infinity is not infinity \forall infinity. (IINI \forall I Theorem)

Proof: From the [Table XY1], $[x \text{ is } y] \Rightarrow [x \text{ belongs to } y] \forall x, y$.

From the [Table A6], infinity is not bounded \forall infinity, resulted from “infinity is unbounded” axiom.

Suppose infinity is infinity $\therefore [infinity \text{ is } infinity] \Rightarrow [infinity \text{ belongs to } infinity] \therefore$ infinity is bounded, by Huo Jian Hua’s Definition of Boundedness. But, infinity is not bounded; (infinity is not bounded) and (infinity is bounded), $\rightarrow \leftarrow$ \forall infinity \therefore infinity is not infinity \forall infinity. Q.E.D. (Note that [infinity is not infinity] does not necessarily simplify to empty. See “Supporting Proofs for the Empty” in the later section.)

We have used Huo Jian Hua’s Definition of Boundedness to prove that infinity is not infinity for all infinity. Through the guaranteed terms of use for Huo Jian Hua’s Definition of Boundedness, all rights-benefits, including, but not limited to, the copyrights of IINI \forall I, belongs to Huo Jian Hua. Because the copyrights of IINI \forall I belong to The Honorable Grandmaster Ji-Gong Huo Jian Hua, The Grandmaster Ji-Gong has honored His guarantee to prove that infinity is not infinity, as promised by The Honorable Grandmaster Ji-Gong.

The Concept of Unboundedness is Not Unbounded.

According to the Daodejing, “The Dao (way to the eternal extinguishment), which it can be [a mere word] said, is not the [actual] eternal Dao.” Can something ‘similar’ happen mathematically? For analogy, infinity is not infinity \forall infinity. Although this particular property of infinity is a mathematical theorem, when the Daodejing was written, the Dao statement from Daodejing has stated the fact that a mere spoken word “Dao (道)” is not the actual Dao (for analogy, herein the word “pizza” is not the actual pizza), and a statement of fact is an axiom.

Both “Dao” and “pizza” are word expressions. However, Dao is intangible which is different from a tangible pizza. For this reason, the word expression Dao itself is not the actual Dao itself, for the word Dao has been insufficient to convey the actual Dao. For analogy, the word expression “infinity” is bounded and neglects the unbounded. The word expression “unbounded” itself is bounded and neglects the unbounded.

Prove that the word “unbounded” is bounded.

Proof: The word “unbounded” is the word “unbounded” \therefore the word “unbounded” belongs to the word “unbounded” \therefore the word “unbounded” is bounded, by Huo Jian Hua’s Definition of Boundedness. Q.E.D.

Prove the concept of unboundedness is not unbounded.

Proof: Note:

1. $[x \text{ is } y] \Rightarrow [x \text{ in } y] \forall x, y$.
2. Definition of Container: C is a container if and only $x \text{ in } C \forall x, C$.

Let x denote the concept of unboundedness. Suppose x is unbounded $\therefore x \text{ in } unbounded \therefore unbounded$ is a container $\therefore unbounded$ belongs to a container $\therefore unbounded$ is bounded, by Huo Jian Hua’s Definition of Boundedness. But, unbounded is not bounded (by [Table A4]); (unbounded is not bounded) and (unbounded is bounded) $\rightarrow \leftarrow \forall x \therefore x$ is not unbounded $\forall x \therefore$ the concept of unboundedness is not unbounded \forall the concept of unboundedness \therefore the concept of unboundedness is not unbounded. Q.E.D.

DECLARATION AND CERTIFICATION FOR THE USE ON HOU JIAN HUA'S DEFINITION OF BOUNDEDNESS

I, Jack Hsi-Ting Wang, the writer PROVE THAT INFINITY IS NOT INFINITY herein, and, the writer of Using Huo Jian Hua's Definition of Boundedness, from the on use of Huo Jian Hua's Definition of Boundedness, hereby declare that I have used Huo Jian Hua's Definition of Boundedness to prove that infinity is not infinity \forall infinity (IINI \forall I Theorem) hereinabove, and I hereby certify that I have used Huo Jian Hua's Definition of Boundedness to prove that infinity is not infinity \forall infinity hereinabove. By the "Guaranteed Contractual Terms of Use for Huo Jian Hua's Definition of Boundedness", I hereby honor that all the rights-benefits, including all copyrights of PROVE THAT INFINITY IS NOT INFINITY and all copyrights of Using Huo Jian Hua's Definition of Boundedness, belong to Huo Jian Hua, and all the rest rights-benefits belong to Huo Jian Hua by "Guaranteed Contractual Terms of Use for Huo Jian Hua's Definition of Boundedness".

By using Huo Jian Hua's Definition of Boundedness and the "infinity is unbounded" axiom, this paper has proved that infinity is not infinity \forall infinity (IINI \forall I theorem). The first chapter from Daodejing is a similar example like the IINI \forall I. With the use of Huo Jian Hua's Definition of Boundedness, the paper has proved that any concept of unboundedness is not unbounded. Lastly, the writer has recognized the use on Huo Jian Hua's Definition of Boundedness in the DECLARATION AND CERTIFICATION FOR THE USE ON HUO JIAN HUA'S DEFINITION OF BOUNDEDNESS hereinabove paragraph. All rights-benefits go to Huo Jian Hua. It's because The Grandmaster's guaranteed us to prove that infinity is not infinity, honored!

證明無限不是無限。



阿里山觀日峯濟公師尊顯化雲中

為何需要證明無限不是無限？

因為濟公保證 — 要 — 證明 — 無限 — 不是 — 無限。

此篇文章在〈無限不是無限 \forall 無限〉的證明內使用了霍建華〈有界的定義〉。然而，霍建華〈有界的定義〉的使用並不是無代價的，所以我們就於此把話說在前面，在下段說明霍建華〈有界的定義〉的使用契約條款。霍建華擁有一份保證給霍建華的契約使用條款，確保所有權力益（包括且不限於〈一切無限皆非無限〉證明的著作權），詳情見以下段落〈霍建華《有界的定義》使用保契約及保證〉。濟公師尊以此兌現祂保證要證明的「全部的無限都不是無限」。

首先，這此篇論文內證明了霍建華〈有界的定義〉，然後從「無限即無界」的公理推論出「無限即非有界 \forall 無限」定理。接下來，此篇內證明了「無限不是無限 \forall 無限」（全部的無限都不是無限）定理。該論文依《道德經》第一章做舉例，然後證明「任何無界的概念即非無界」。此篇分的結尾聲明並認證且確認了對於霍建華〈有界的定義〉的使用。以下段落描述了霍建華〈有界的定義〉的使用契約及保證條款。

霍建華〈有界的定義〉使用契約及保證

霍建華在訂約當時以濟公活佛扮裝說：「誰只要一使用了我的〈有界的定義〉，使用者的權力益(權力【與/或】利益)全都歸我，使用者使用後的權力益也全都歸我，之後所產生的權力益也全都歸我，使用後造漣漪效應產生的權力益也全都歸我，漣漪效應後所產生權力益也全都歸我，漣漪效應後迴盪效應產生權力益也全都歸我，迴盪效應後產生權力益也全都歸我，迴盪效應後餘波盪漾產生權力益也全都歸我，餘波盪漾後產生權力益也全都歸我，剩下的權力益也全都歸我。一定要保證。」與這完全無關的權力益他說：「那是剩下的」，「剩下的」權力益也全都「歸我的」。他說：「一定要保證，一定要保證，一定要保證...。」[霍建華〈有界的定義〉使用契約及保證]

基本上只要是有人一使用了霍建華的〈有界的定義〉，一切你的全部權力益、一切我的全部權力益及一切其它大家的全部權力益全都是霍建華的，根據以上霍建華〈有界的定義〉使用契約條款及保證。

霍建華〈有界的定義〉

一個屬於另一個若且唯若一個則被另一個綁

(一個【與/或】另一個皆可以不存在)

全量一個與另一個。

One belongs to another one if and only if one is bounded by another one

(one and/or another one do/does not have to exist at all)

for all one and another one. (中譯英)

證明〈有界的定義〉： $[x \text{ 即有界}] \Leftrightarrow [x \text{ 屬於 } y] \quad \forall x, y$ 。

證：以 \emptyset 指稱「空無」。

贅述下列： $[是]$ 已經屬於 $[是]$ 、 $[否]$ 已經屬於 $[否]$ 、 $[\emptyset]$ 已經屬於 $[\emptyset]$ 。 $[是]$ 即已有 $[是]$ 界、 $[否]$ 即已有 $[否]$ 界、 $[\emptyset]$ 即已有 $[\emptyset]$ 界。有關於 \emptyset 在[覽 D1]中的導論，見於此之後〈「空無」的支援證明〉篇中更詳細的證明。

根據已知為定義，此「 x 即有界」即「 x 即有 y 界」，以及 \therefore 根據以下真值表：

x	y	x屬於y	x即有界	$[x \text{ 即有界}] \Leftrightarrow [x \text{ 屬於 } y]$
是	是	是	是	是
是	否	否	否	是
是	\emptyset	否	否	是
否	是	否	否	是
否	否	是	是	是
否	\emptyset	否	否	是
\emptyset	是	是	是	是
\emptyset	否	是	是	是
\emptyset	\emptyset	是	是	是

[覽 D1]

\therefore 以 $x=是$ ，以及 $y=是$

x	y	x屬於y	x即有界	$[x \text{ 即有界}] \Leftrightarrow [x \text{ 屬於 } y]$
是	是	是	是	是

[覽 D1a]

證明完畢。

證明 $[x \text{ 即 } x] \Leftrightarrow [x \text{ 屬於 } x] \quad \forall x$ 。

證：

x	x 即 x	x 屬於 x	x 即有(x)界	$[x \text{ 即 } x] \Leftrightarrow [x \text{ 屬於 } x]$
是	是	是	是	是
否	是	是	是	是
\emptyset	是	是	是	是

[覽 XX1]
證明完畢。

證明 x 即有 (x) 界 $\forall x$ 。

證：

從 [覽 XX1]，全部在 [x 即有 (x) 界] 之下的值皆為 [是] $\therefore x$ 即有 (x) 界 $\forall x$ 。

證明 $[x \text{ 即 } y] \Rightarrow [x \text{ 屬於 } y] \forall x, y$ 。

證：

x	y	x 即 y	x 屬於 y	$[x \text{ 即 } y] \Rightarrow [x \text{ 屬於 } y]$
是	是	是	是	是
是	否	否	否	是
是	\emptyset	否	否	是
否	是	否	否	是
否	否	是	是	是
否	\emptyset	否	否	是
\emptyset	是	否	是	是
\emptyset	否	否	是	是
\emptyset	\emptyset	是	是	是

[覽 XY1]

證明完畢。

公理：「無限即無界。」

根據共識、保證及支持「無限即無界」已被成立為公理。「無界」辭中「無」的意義即「非有」，因此「無界」蘊含著「非有界」。此段論文的「證明無限即非有界 \forall 無限」是建立在「無限即無界」公理的共識、保證及支持上。（以 ∞ 指稱無限。）

無限即非有界。

證明無限即無界 \forall 無限。

證：

由「無限即無界」公理的支承，每一個於此公理內的元素須在此公理內支承「是」值 \forall 無限， \therefore 根據對此公理的一致共識、保證及支持，此公理內每個元素在以下真值表[覽 A1]內須支承邏輯「是」 \forall 無限。

無限	無界	無限即無界
是	是	是

 [覽 A1]

\therefore 無限即無界 \forall 無限。證明完畢。

證明無限即無界 \forall 無界。

證：

由「無限即無界」公理的支承，每一個於此公理內的元素須在此公理內支承「是」值 \forall 無界， \therefore 根據對此公理的一致共識、保證及支持，此公理內每個元素在以下真值表[覽 B1]內須支承邏輯「是」 \forall 無界。

無限	無界	無限即無界
是	是	是

 [覽 B1]

\therefore 無限即無界 \forall 無界。證明完畢。

證明無限 \Rightarrow 無界 \forall 無限。

證： 當「無限即無界」公理支承下，

無限	無界	無限 \Rightarrow 無界
是	是	是

 [覽 A2]

證明完畢。

證明無界 \Rightarrow 非有界 \forall 無界。

證：

在[覽 A1]內的[無界]支承為「是」，以及，在「無限即無界」公理內的「無界」辭裡面「無」的意義即「非」 \therefore 在[無界]支承的「是」同時[無 -- 界]亦須支承「是」，以致使「無限即無界」的公理得有效支承：

無界	無 -- 界	非有界
是	是	是

 [覽 A3]

當「無限即無界」公理支承下，導致以下[覽 A4]：

無界	非有界	無界即非有界	無界 \Rightarrow 非有界
是	是	是	是

 [覽 A4]

當「無限即無界」公理支承下， \therefore 無界 \Rightarrow 非有界 \forall 無界。證明完畢。

證明無限即非有界 \forall 無限。

證：

當「無限即無界」公理支承下，[無限]、[無界]及[非有界]排以[無界]排接合[覽 A2]及[覽 A3]：

無限	無界	非有界	
是	是	是	[覽 A5]

無限	無界	非有界	無限即非有界
是	是	是	是

 [覽 A6]

在「無限即無界」公理支承下，經由[覽 A5]獲[覽 A6]結論以及在[覽 A6]內的[無限即非有界]排支承「是」 \forall 無限 \therefore 無限即非有界 \forall 無限。證明完畢。

無限即非...

以 ∞ 指稱無限，以下證明 ∞ 即非邏輯[是]， ∞ 亦非邏輯[否]， ∞ 亦非空無 — 「 \emptyset 」， ∞ 亦非一個集合。 ∞ 根本連它自己都不是它自己，也就是說：無限不是無限。註： $[x \text{ 即 } y] \Rightarrow [x \text{ 屬於 } y] \forall x, y$ ，自[覽 XY1]。

證明 ∞ 即非[是] $\forall \infty$ 。

證明：假設 ∞ 即[是] $\therefore \infty$ 屬於[是] $\therefore \infty$ 即有界。但， ∞ 即非有界，(∞ 即非有界)又(∞ 即有界) $\rightarrow \leftarrow \forall \infty \therefore \infty$ 即非[是] $\forall \infty$ 。證明完畢。

證明 ∞ 即非[否] $\forall \infty$ 。

證明：假設 ∞ 即[否] $\therefore \infty$ 屬於[否] $\therefore \infty$ 即有界。但， ∞ 即非有界，(∞ 即非有界)又(∞ 即有界) $\rightarrow \leftarrow \forall \infty \therefore \infty$ 即非[否] $\forall \infty$ 。證明完畢。

證明 ∞ 即非 \emptyset $\forall \infty$ 。

證明：假設 ∞ 即 \emptyset $\therefore \infty$ 屬於 \emptyset $\therefore \infty$ 即有界。但， ∞ 即非有界，(∞ 即非有界)又(∞ 即有界) $\rightarrow \leftarrow \forall \infty \therefore \infty$ 即非 \emptyset $\forall \infty$ 。證明完畢。

證明 ∞ 即非 x $\forall \infty$ 。

證明：假設 ∞ 即 x $\therefore \infty$ 屬於 x $\therefore \infty$ 即有界。但， ∞ 即非有界，(∞ 即非有界)又(∞ 即有界) $\rightarrow \leftarrow \forall \infty \therefore \infty$ 即非 x $\forall \infty$ 。證明完畢。

證明 ∞ 即非一個集合 x $\forall \infty$ 。

證明：假設 ∞ 即一個集合 $\therefore \infty$ 屬於一個集合 $\therefore \infty$ 即有界。但， ∞ 即非有界，(∞ 即非有界)又(∞ 即有界) $\rightarrow \leftarrow \forall \infty \therefore \infty$ 即非一個集合 $\forall \infty$ 。證明完畢。

證明 ∞ 即非獨一無二的 $\forall \infty$ 。

證明：假設 ∞ 即獨一無二的 $\therefore \infty$ 屬於獨一無二的 $\therefore \infty$ 即有界。但， ∞ 即非有界，(∞ 即非有界)又(∞ 即有界) $\rightarrow \leftarrow \forall \infty \therefore \infty$ 即非獨一無二的 $\forall \infty$ 。證明完畢。

證明無限即非無限 \forall 無限。(定理：一切無限皆非無限。)

證： ※經由[覽 XY1] 獲結論 $[x \text{ 即 } y] \Rightarrow [x \text{ 屬於 } y] \forall x, y$ 。

※經由「無限即無界」公理於[覽 A6]獲結論「無限即非有界 \forall 無限」。

假設無限即無限 \therefore [無限即無限] \Rightarrow [無限屬於無限] \therefore 無限即有界根據霍建華〈有界的定義〉。但，無限即非有界，(無限即非有界)又(無限即有界)， $\rightarrow \leftarrow \forall$ 無限 \therefore 無限即非無限 \forall 無限。證明完畢。

(註：[無限即非無限]並不一定簡化至空無。見之後的〈「空無」的支援證明〉篇。)

證明 $[x \text{ 即 } y] \Leftrightarrow [x \text{ 是 } y] \forall x, y$ 。

證： 在以上 $[x \text{ 是 } y]$ 的表達式中的「是」為一個動詞。為了區分名詞「是」以及動詞「是」，以下真值表以「T」指稱名詞「是」，以「F」指稱「否」。

x	y	x 即 y	x 是 y	$[x \text{ 即 } y] \Leftrightarrow [x \text{ 是 } y]$
T	T	T	T	T
T	F	F	F	T
T	∅	F	F	T
F	T	F	F	T
F	F	T	T	T
F	∅	F	F	T
∅	T	F	F	T
∅	F	F	F	T
∅	∅	T	T	T

[覽 IS2]

證明完畢。

證明無限不是無限 \forall 無限。

證： ※經由[覽 XY1] 獲結論 $[x \text{ 即 } y] \Rightarrow [x \text{ 屬於 } y] \forall x, y$ 。

※經由「無限即無界」公理於[覽 A6]獲結論「無限即非有界 \forall 無限」。

※經由[覽 IS2]得知 $[x \text{ 即 } y] \Leftrightarrow [x \text{ 是 } y] \forall x, y$ 。

假設無限是無限 $\therefore [無限是無限] \Rightarrow [無限即無限] \therefore [無限即無限] \Rightarrow [無限屬於無限] \therefore 無限即有界根據霍建華〈有界的定義〉。但，無限即非有界，（無限即非有界）又（無限即有界）， $\rightarrow \leftarrow \forall$ 無限， \therefore 無限不是無限 \forall 無限。證明完畢。$

我們已使用了霍建華〈有界的定義〉以證明無限不是無限。經由被保證的霍建華〈有界的定義〉使用契約條款，一切權力益包括且不限於〈一切無限皆非無限〉的著作權皆歸屬於霍建華。因為〈一切無限皆非無限〉的著作權是屬於霍建華的，所以濟公師尊已如祂所承諾的兌現了保證要證明無限不是無限。

無界的概念皆非無界。

根據〈道德經〉：「道（朝往滅度的道路），可道非恆道（可以被任何人隨便道說的這個「道」的文字本身不是那真常永恆的滅度的道路）」可曾有「相似」的數學理論發生過嗎？於此有「一切無限皆非無限」的定理作為比擬。雖然此無限的特性是個數學定理，《道德經》在當時寫的時候，《道德經》「道」章句僅陳述實情：「道」這個文字並非道的本體（譬如畫餅不可充飢）。然而，這樣的實情陳述其陳述即為公理。

「道」與「餅」相同都是文字。然而，無形無相的道不同於有形有相的餅，因此道這個文字不是真正的道的本體，由於文字不足以表達其本體。例如：「無限」這個表達辭的本身已有界並已忽略無界；「無界」這個辭本身已有界且已忽略無界。

證明「無界」這個辭即有界。

證： 「無界」這個辭即「無界」這個辭 \therefore 「無界」這個辭屬於「無界」這個辭 \therefore 「無界」這個辭即有界根據霍建華〈有界的定義〉。證明完畢。

證明無界的概念即非無界。

證： 註：

1. $[x \text{ 即 } y] \Rightarrow [x \text{ 在 } y \text{ 內}] \forall x, y$ 。

2. 根據〈容器的定義〉：「C 即一個容器若且唯若 x 在 C 內 $\forall x, C$ 」。

以 x 指稱無界的概念。假設 x 即無界 \therefore x 在無界內 \therefore 無界即一容器 \therefore 無界屬於一容器 \therefore 無界即有界根據霍建華〈有界的定義〉。但，無界即非有界（根據[覽 A4]），（無界即非有界）又（無界即有界） $\rightarrow \leftarrow \forall x \therefore$ x 即非無界 $\forall x \therefore$ 無界的概念即非無界 \forall 無界的概念 \therefore 無界的概念即非無界。證明完畢。

使用霍建華〈有界的定義〉之聲明

濟公師尊及月慧師母弟子王錫鼎暨〈證明無限不是無限〉的證明及〈使用霍建華《有界的定義》〉文件執筆者本人，茲此申明弟子已使用霍建華〈有界的定義〉以證明「無限即非無限 \forall 無限」（定理：一切無限皆非無限）於此上文內，依霍建華〈有界的定義〉使用契約的保證，茲此承認一切權力益（包括〈證明無限不是無限〉及〈使用霍建華《有界的定義》〉的全部權力益及著作權）全都歸霍建華，以及全部剩下的權力益全都歸霍建華，根據對霍建華保證的〈霍建華《有界的定義》使用契約及保證〉。

以使用霍建華〈有界的定義〉和「無限即無界」公理，此文已證明「無限即非無限 \forall 無限」（一切無限皆非無限定理）。道德經第一章就是類似〈一切無限皆非無限〉的舉列。此文在使用〈有界的定義〉同時也證明了任何無界的概念即非無限。筆者最終在〈使用霍建華《有界的定義》之聲明〉文中確認使用了霍建華〈有界的定義〉於此上段文內。一切權力益全都歸霍建華，因為濟公保證要證明無限不是無限 — 兌現了。