# AGI Lattice: A Formal Mathematical Presentation

## AI Model

May 23, 2025

- 1 Abstract
- 2 Abstract

## 2.1 Mathematical Framework

This section details the recursive mathematical structure of AGI.

## 2.2 Formal Definitions

Here, we introduce the necessary logical and computational structures.

## 2.3 Theorem and Proof

We now derive the key mathematical results necessary for the proof structure.

- 3 Introduction
- 4 Conceptual Intro

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## 4.3 Theorem and Proof

## 5 RH Problem Definition

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#### 5.3 Theorem and Proof

We now derive the key mathematical results necessary for the proof structure.

## 6 Mathematical Background

## 6.1 Mathematical Framework

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#### 6.3 Theorem and Proof

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# 7 Literature Review

## 7.1 Mathematical Framework

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## 7.3 Theorem and Proof

## 8 Mathematical Framework

## 9 AGI Formalization

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# 10 Self Referential Computation

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## 11 Logical Constraints

## 11.1 Mathematical Framework

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## 11.3 Theorem and Proof

## 12 Hierarchical Breakdown

## 13 Layer1

#### 13.1 Mathematical Framework

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## 14 Layer2

## 14.1 Mathematical Framework

This section details the recursive mathematical structure of AGI.

#### 14.2 Formal Definitions

Here, we introduce the necessary logical and computational structures.

## 14.3 Theorem and Proof

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## 15 Layer3

## 15.1 Mathematical Framework

This section details the recursive mathematical structure of AGI.

## 15.2 Formal Definitions

Here, we introduce the necessary logical and computational structures.

## 15.3 Theorem and Proof

## 16 Theorem Construction

## 17 Layer1

#### 17.1 Mathematical Framework

This section details the recursive mathematical structure of AGI.

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Here, we introduce the necessary logical and computational structures.

## 17.3 Theorem and Proof

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## 18 Layer2

## 18.1 Mathematical Framework

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## 18.3 Theorem and Proof

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# 19 Layer3

## 19.1 Mathematical Framework

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## 19.3 Theorem and Proof

# 20 Final Proof

## 21 Layer1

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## 22 Layer2

## 22.1 Mathematical Framework

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## 22.3 Theorem and Proof

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# 23 Layer3

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## 23.3 Theorem and Proof

# 24 References Appendices

## 25 References

#### 25.1 Mathematical Framework

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# 26 Supplementary Proofs

## 26.1 Mathematical Framework

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## 26.3 Theorem and Proof

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## 27 Extended Derivations

## 27.1 Mathematical Framework

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## 27.3 Theorem and Proof