**CIMM TECHNICAL DIAGRAMS AND SYSTEM ARCHITECTURE**

**1. OVERVIEW**

This document contains detailed **block diagrams, flowcharts, and system schematics** illustrating the functionality, architecture, and decision-making processes of the **Cosmic Information Mining Model (CIMM)** and its integration with **Quantum Balance Equation (QBE)**.

**2. SYSTEM BLOCK DIAGRAM**

**Figure 1: High-Level Architecture of CIMM**

A screenshot of a computer program

AI-generated content may be incorrect.

**3. SYSTEM FLOW DIAGRAM**

**Figure 2: CIMM Decision Flow Process**

A screenshot of a computer program

AI-generated content may be incorrect.

**4. QUANTUM-ENHANCED REINFORCEMENT LEARNING**

**Figure 3: Quantum Feedback Loop**

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AI-generated content may be incorrect.

**5. AI SYSTEM PRUNING AND EXPANSION**

**Figure 4: Neural Network Adaptive Pruning**

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AI-generated content may be incorrect.

**6. QUANTUM POTENTIAL LAYER (QPL) FEEDBACK**

**Figure 5: QPL Regulatory System**

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**7. Example Results:**

**All results use the same model and adaptively learn. They are given a small dataset to help give context before live-predicting, but then adapt live. This prototype was built over two weeks and needs further optimization.**

**Stock Prediction:**

**A graph with orange and blue lines

AI-generated content may be incorrect.**

Error Metrics: {'KL-Divergence': 0.36602922460714193, 'Jensen-Shannon': 0.0, 'Wasserstein Distance': 0.0006281407035175636, 'QWCS': 0.5737274636640433}

**Prime Number Structure Prediction(90000 primes and 10000 for context, in batches of 10):**

**A graph showing a red line

AI-generated content may be incorrect.**

Error Metrics: {'KL-Divergence': 0.4861253719213587, 'Jensen-Shannon': 0.0, 'Wasserstein Distance': 0.0001158614297300419, 'QWCS': 0.5906311565221966}

You can see the underlying prediction structure is almost identical.

I have done up to 9 million on my laptop, and the model isn’t GPU enabled yet to show the efficiency.

**Dark Matter Distribution:**

**9000 datapoints:**

**A graph showing a red line

AI-generated content may be incorrect.**

Error Metrics: {'KL-Divergence': 0.5133642863819162, 'Jensen-Shannon': 0.0, 'Wasserstein Distance': 0.0001111111111110204, 'QWCS': 0.5910497985631835}

**900 datapoints:**

A graph showing a red and blue line

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Error Metrics: {'KL-Divergence': 0.3992791029707671, 'Jensen-Shannon': 0.0, 'Wasserstein Distance': 0.001111111111093941, 'QWCS': 0.5680239476332432}

**8. CONCLUSION**

The diagrams above illustrate the fundamental **structural and decision-making mechanisms** in **CIMM**. The integration of **Quantum Potential Layer (QPL), Bayesian optimization, and entropy-regulated learning** ensures that CIMM operates as a **self-learning, self-adapting AI intelligence system**. These diagrams provide a clear overview of how CIMM continuously adjusts its **neural architecture and learning processes** based on **quantum-inspired entropy control principles**.