

Whitepaper - The Technological Future of the Becker-GPT Sieve

1. Overview

The Becker-GPT Sieve is a modular, fractal-based algorithm designed for prime number filtration. Its symbolic, residue-driven structure provides a novel foundation for next-generation technologies including quantum computation, symbolic AI, and cryptographic systems.

2. Key Advantages

- Symbolic logic over modular residues (e.g., mod 42, 210)
- Natural compatibility with superposition and interference
- Fractal compressibility and data filtration
- Pattern-based computation instead of binary state changes

3. Applications by Domain

A. Symbolic Artificial Intelligence:

- Modular reasoning systems
- Self-explaining logic networks

B. Quantum Computing:

- Coprime-based quantum state encoding
- Modular quantum circuits (residue interference)

C. Cryptography:

- Fractal hash functions
- Post-quantum modular encryption

D. Blockchain:

- Fractal consensus algorithms
- Modular smart contracts and symbolic validation

E. Multicloud and Distributed Systems:

- Parallelism via residue partitioning
- Load balancing through fractal cycle compression

4. Strategic Implications (2025-2040)

This sieve may drive the next computing paradigm: combining symbolic intelligence with quantum mechanics. It offers scalable, interpretable, and high-efficiency computation for mission-critical systems and infrastructure.

5. Visual Reference

The included visual map presents how the Becker-GPT sieve connects directly to practical and emerging tech fields.

6. References and Origin

Developed by Bruno Becker & ChatGPT/OpenAI (2025). ISBN 978-65-01-54204-1. Official repository:
<https://becker-gptsieve.github.io/brunobecker.github.io/>