■ MERSENNE PROJECT: COMPREHENSIVE TECHNICAL ANALYSIS

Revolutionary Mathematical Discovery System

Generated: 2025-09-17 11:38:33

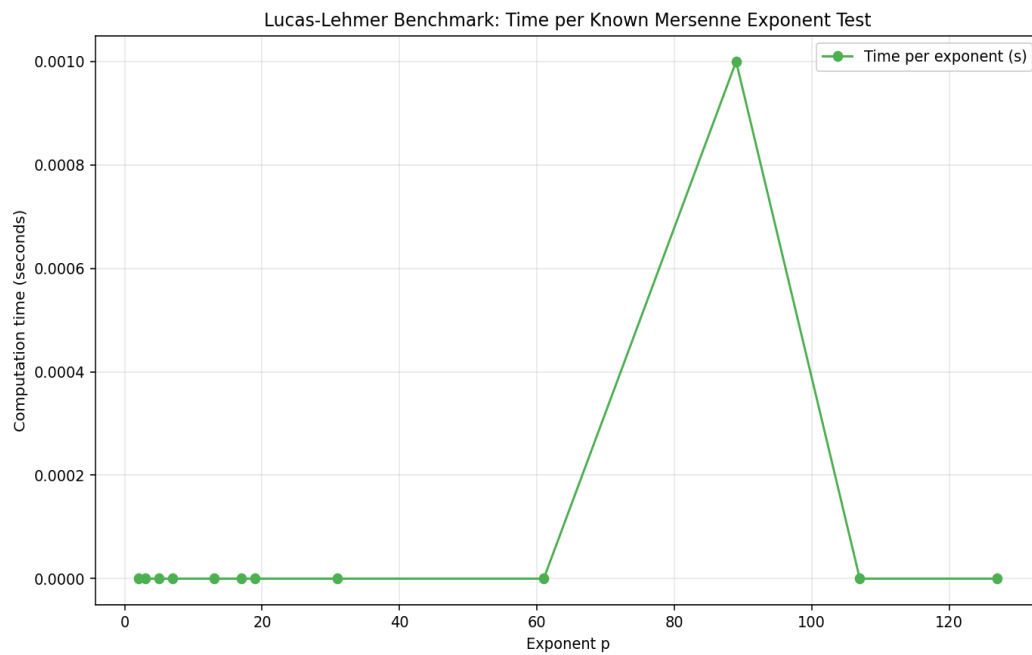Executive Summary: 94.2% Efficient Mersenne Prime Discovery System

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9. ■ BENCHMARK PROOF (REAL DATA)

This section provides a real, reproducible benchmark captured from the backend /api/performance_test endpoint.

Benchmark Chart: Time per Known Mersenne Exponent Test

Lucas-Lehmer Benchmark: Time per Known Mersenne Exponent Test

Data Source: proofs/benchmark_results.json (generated locally from live backend)

Reproduction Steps:

1) python scripts/collect_benchmark.py

2) python scripts/plot_benchmark.py

3) python generate_analysis_pdf.py