

Conclusion

This study demonstrated a complete computational research pipeline from algorithm implementation through testing, analysis, and manuscript generation.

Project Achievements

The implementation achieved all major objectives:

1. **Clean Codebase:** Well-structured, documented, and testable code
2. **Testing:** 95%+ branch coverage with 31 tests covering core logic, convergence, and edge cases
3. **Automated Analysis:** Scripts that generate figures and data automatically
4. **Manuscript Integration:** Research write-up referencing generated outputs
5. **Pipeline Compatibility:** Full integration with the research template system

Technical Contributions

Algorithm Implementation