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Special Issue Reprint

New Advances in Computational Finance and Computational Intelligence in Finance

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This Special Issue presents recent advances in Computational Finance and Computational Intelligence in Finance, emphasizing the role of mathematical modeling, numerical algorithms, and data driven methodologies in contemporary financial analysis. The contributions highlight the increasing integration of machine learning, optimization theory, and computational mathematics into financial modeling frameworks, offering new tools for understanding complex market dynamics and enhancing decision making under uncertainty. The published articles cover a broad range of topics, including AI based financial data analysis, predictive modeling, algorithmic trading, and quantitative risk assessment. Several studies propose innovative optimization and metaheuristic techniques for portfolio management, while others explore fuzzy logic approaches, high performance numerical methods, and emerging quantum computing paradigms that enrich the mathematical toolkit available for financial applications.

Additional research featured in the Special Issue examines the computational aspects of accounting analytics, blockchain and digital asset valuation, and market microstructure, alongside agent based simulations and behavioral models that provide new insights into market interactions and systemic dynamics. Collectively, these contributions demonstrate how advanced mathematical and computational techniques continue to shape the evolution of financial theory and practice.

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