

## Special Issue

# Advanced Bio-Inspired Mathematical Modeling and Machine Learning Algorithms for Quantitative Finance Applications

### Message from the Guest Editor

This special issue brings together research papers which reports new theoretical or applied algorithms employing mathematical modeling and/or machine learning in a variety of financial issues. We strongly encourage the submission of papers that explore new research perspectives in different areas of quantitative finance including, but not restricted to, forecasting and analysis of financial time series, financial networks, fund investment management, trading systems, Machine Learning for High Frequency Trading systems, Algorithmic trading, financial risk management, innovative mathematical algorithms for portfolio allocation and optimization, bio-inspired mathematical models for asset pricing, bio-inspired trading algorithms, genetic trading systems, etc.. The main purpose of this special issue is to highlight the advantages (in terms of accuracy, robustness, profitability, financial sustainability and efficiency) that recent machine learning approaches and advanced bio-inspired mathematical modeling show in addressing financial problems.

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### Guest Editor

Prof. Dr. Francesco Rundo

STMicroelectronics, ADG R&D Power and Discretes Division, Artificial Intelligence Team, Catania, Italy

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### Deadline for manuscript submissions

closed (28 February 2020)



## Applied Sciences

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*Applied Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[applsci@mdpi.com](mailto:applsci@mdpi.com)

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## About the Journal

### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,  
20133 Milano, Italy

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