Applications and Mathematical Foundations of Machine Learning in Investments

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Message from the Guest Editors

Machine learning (ML) methods have been applied to all steps of investment processes: to include alternative and often unstructured data for selecting single securities, to make the asset allocation process robust against instable return and covariance estimations, to actively time the market in the tactical allocation step, to estimate and manage risk and to generate transparent backtests with a reduced risk of overfitting. Driven by market competition, the adopted methods are often based on the experience of market practitioners and use innovations from scientific fields beyond finance. This market-driven adoption often leads to heuristic approaches not yet as rigorously tested as those from academic financial econometrics or financial mathematics. Diverging and unstructured data present an additional challenge, especially in the field of sustainable investments.

With this Special Issue, we would like to invite an academic and practitioner audience to investigate ML and AI applications for investment and portfolio management, and to advance the field through mathematical and econometrical contributions.

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Special Issue

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Message from the Editor-in-Chief

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