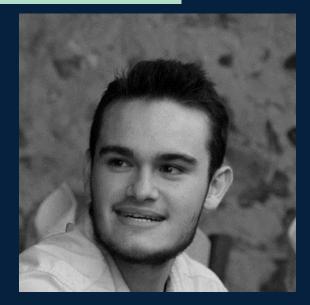# JEREMY BELLINA

Email Address
Jeremy.Bellina@univ-grenoble-alpes.fr

Institution Name
Grenoble Alpes University

Country
France

Research Area
Finance, Economics and Law

Thematic Focus
Regulation on mutual funds

Stakeholders involved
Banks, asset management companies, investors

Research Phase
In preparation

RESEARCH ASSET

Mutual funds are portfolios of financial assets managed by banks or asset management companies on behalf of final investors wishing to invest their savings. The research work aims, on the one hand, to remedy the insufficient frequency of disclosure to investors of the list of assets held by mutual funds and, on the other hand, to extract from the funds' returns alone the maximum amount of information on the portfolio and its manager. The work could eventually take the form of a thesis with articles structured around the project's axes: 1) verification of compliance with the management objectives announced by mutual funds to investors and 2) knowledge of the actions and behavior of fund managers based on the returns of their portfolios and public information. Based on minimal and non-manipulable information, the daily returns of mutual funds, associated with the returns of the assets of the investment universe, we will develop algorithmic methods to find the daily composition of a portfolio and the decisions to change its composition over time. This will allow us to verify the accuracy of the information disseminated by mutual funds to investors and to avoid manipulations by managers on the mandatory publication dates of portfolio compositions (window dressing or pumping). The second step will be to identify the type of rationality that fund managers demonstrate in their decisions. The project is interdisciplinary, combining management science (finance) with skills in optimal control and observation of complex dynamic systems. The problems to be solved belong to the category of large-scale inverse problems, consisting of reconstructing parameters, states, behaviors or decisions from a large mass of data. From an algorithmic point of view, it will be necessary to compare or combine different observation approaches: variational approaches (e.g., adjoining data assimilation methods used in particular in the environmental domain), recurrent approaches (state observers such as the Kalman filter or sliding horizon observers) or classification or regression approaches by supervised learning using convolution neural networks for example or kernel-based methods (Deep or Machine Learning techniques).

REVALORISE+
enhancing research impact

www.**revalorise**.eu

POTENTIAL VALORISATION AREAS

- **Collaboration with stakeholders from the finance sector**: whereas the access to data for finalising of the research is most valuable, likewise getting the feedback on the research framework and advices on where and how research can be applied

- **Collaboration with government stakeholders**: where the research can contribute on adoption of the regulations on mutual funds

Valorisation of my research will help successful framing of the research outlook and proposal of the solutions that meet the needs of regulators.

DESCRIPTION OF VALORISATION POTENTIAL

- **New research**
- **Publications**
- **New research models and perspective** on the transparency issues in the mutual funds processes and regulations
- **Consulting services** to any sector or stakeholder working on mutual funds regulations, banking, market regulations and related
- **Collaboration with government and non-governmental stakeholders** or the actual involvement in the application of research in practice
- **Public policy/Regulations** or the translation of the research into regulation on the mutual fund

VALORISATION TARGETS/POTENTIAL FUTURE COLLABORATORS

Government stakeholders: any sector or employee working on mutual funds regulations, banking, finance market regulations and related in the AMF Autorité des Marchés Financiers / Financial Market Authority.

Non-government stakeholders: any company, private institution and stakeholders coming from the private sector who work on the mutual funds regulations, finance market regulations and related (e.g., Amundi, Natixis Investment Managers, BNP Paribas Asset Management France, etc.).

REVALORISE⁺
enhancing research impact

www.**revalorise**.eu