

Editorial



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Dear All,

It is with great pleasure that we welcome you to the first issue of our journal, **PUQR – Probability, Uncertainty and Quantitative Risk**, a peer-reviewed open-access journal.

Considering its recent and very dynamic development, the theory of backward stochastic differential equations has attracted many researchers, with its vast field of applications in stochastic control, games, finance, and deterministic and stochastic partial differential equations. This has spurred the development of new areas for research such as nonlinear dynamic expectation theory, e.g., g and G -expectation, and path-dependent partial differential equations, while also finding new applications for problems of ambiguity, uncertainty, quantitative risk, and recursive utility in finance and economics. As we further this field, it is important to provide a forum to stimulate future development with a journal that focuses on these topics. More precisely:

The primary objective of *PUQR – Probability, Uncertainty and Quantitative Risk* is to publish work of the highest standards on [cutting-edge topics.// the cutting edge topics of:]

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- +Ambiguity (Knightian Uncertainty),
- +Backward stochastic differential equations, nonlinear expectation, and path-dependent PDEs,
- +Dynamic risk measures,
- +Mathematical modelling under uncertainty,
- +Quantitative risks,
- +Recursive Utility,
- +Uncertainty quantification,
- +Computational aspects and numerical methods pertinent to the above topics,
- +Related topics, among them also relevant to statistics.

The related topics encompass a broad range of research, from mathematical approaches in which the above topics play a key role or constitute an important tool, to backward SDE methods in stochastic control problems, differential games in the context of uncertainty that may, e.g., be related to asymmetric information, and to a vast field of applications such as mean-field approaches in finance or modelling systematic risk.

The objective of our journal is to stimulate research in the topics on which we focus, to strengthen the connections between them, to encourage new developments, and to facilitate frequent communication between researchers. For these reasons, the journal will go hand in hand with an evolving web site, which, beyond the typical functionality, will house a platform of information and exchanges, facilitate the organization of conferences and workshops, and contain a dedicated space for the contributions of PhD students, post-doctoral researchers, and young researchers.

Our journal is published as an Open Access Journal with a Springer Edition. The choice of Open Access is the result of long-ranging discussions, guided, on one hand, by the necessity of logistical support for the launch and management of the journal, and, on the other hand, by the advantages of this choice for the readers and, with the generous support of Shandong University, also the authors.

The advantages for the authors regarding this choice are:

+ *No publication charge for authors* (The article processing charge is fully covered by Shandong University);

+ *Free access for all readers* to all publications of our journal, which guarantees a wide circulation of the author's research results. In addition to the publication of the articles on the PUQR website, Shandong University also prepares the journal for distribution in paper form.

+ *Authors hold copyright for their work.*

+ *A quick turnaround between submission and publication;* this delay is much shorter than for classical journals. Our objective is to also maintain a short turnaround time in the future.

We are also very pleased to call on a well-respected and highly-regarded Editorial Board whose members well-recognized expertise encompasses the topics of this journal. The Editorial Board and the Editors guarantee peer-reviewed articles of very high quality, thereby maintaining the strict standards of PUQR. With the publication of the first issue of PUQR, our project has

entered into a new phase. We welcome all those who align with the objectives and topics of our journal to submit high quality research results and help contribute to the success of PUQR and its related projects. May it become the ultimate source of new results in **Probability, Uncertainty and Quantitative Risk** and succeed to become a tool of knowledge and exchange for our community.