Preface

Georges Zaccour

In a world offering many possibilities for publishing scientific results, launching a new journal deserves an explanation.

It does not take long to observe that, in games, players (firms, countries, individuals, animals and cells) are often repeatedly interacting over time, and seldom battling or cooperating only once. The presence of this *dynamic* feature in almost all real-life games contrasts with the absence of a scientific journal that is fully dedicated to the development of the theory and applications of dynamic games. *Dynamic Games and Applications* aims at filling this gap. The existence of a vacuum is, however, only a necessary condition for starting a journal. Sufficiency follows from the need for a dedicated journal to federate the new ideas emanating from a large community of researchers in dynamic games who are working in different fields. *Dynamic Games and Applications* aims at becoming the natural place for multiple cross-fertilizations, that is, among classes of dynamic games and among fields of study, as well as between theory and applications.

Dynamic Games and Applications is devoted to the development of all classes of dynamic games, namely, differential games, discrete-time dynamic games (or multistage state-space games), evolutionary games, repeated and stochastic games, and their applications in all fields, e.g., biology, computer science, ecology, economics, engineering, management science, operations research, political science, psychology.

Dynamic Games and Applications seeks original research that makes significant methodological, conceptual, algorithmic, or empirical contribution. *DGAA* considers also work in static game theory and dynamic optimization provided the authors establish a clear potential link to dynamic games. *DGAA* publishes regular papers, technical notes, survey articles, and case studies.

Dynamic Games and Applications adheres to the highest standard of quality, ethics and professionalism in publishing. In particular, this means: (i) that submitted papers are evalu-

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ated based on their originality, correctness and relevance to the field. Off-beaten-track papers will be reviewed with an open-mind approach that is (or should be) characteristic of scientists. (ii) That the editorial board members follow the best practices in ethics in publishing and expect authors and reviewers to do the same. Authors are treated with due respect, independently of the level of their contributions. (iii) That the Journal does its best to offer the highest possible level of service to its constituency, by, among other things, providing a high-quality and timely feedback to authors.

I am very pleased to introduce this inaugural issue of *DGAA*, which is made of six papers surveying important theoretical and applied developments in dynamic games. Acemoglu and Ozdaglar give an overview of recent research on belief and opinion dynamics in social networks. Başar and Zhu deal with the price of anarchy and price of cooperation in differential games. Buckdahn, Cardaliaguet and Quincampoix survey new advances in theoretical aspects of differential game theory. Long provides a comprehensive survey of models of dynamic games in the exploitation of renewable and exhaustible resources. Sigmund, Hauert, Traulsen and De Silva review the role of voluntary participation in establishing and upholding cooperation with or without punishment in evolutionary games. Sorin describes some recent advances in zero-sum repeated games and in particular new connections to differential games.

Finally, I would like to sincerely thank the editorial board members for their commitment to the success of the Journal.

Editor-in-Chief