

## EDITORIAL

This special issue of Operations Research and Decisions is dedicated to Gianfranco Gambarelli, on his retirement at ... the age prescribed by the Italian rules.

He is a mathematician, but not only. He has provided contributions in Game Theory, but not only. He has authored hundreds of papers and books on Game Theory, but not only. He is a person whose interests span several areas, topics and disciplines. He is the author of a number of poems, a lot of which are in “Bergamasco”, the local dialect of Bergamo, his city. He is a singer and everybody that has attended a meeting with Gianfranco may well have witnessed the quality of his performances. He likes good friends, good jokes, good food. In summary, he likes good life! But there is something that he likes more, his family: his wife Gabriella, daughter Gretel and son Daniele.

Last November, we had the idea of this special issue in his honor and decided to invite his coauthors to contribute a paper. We collected the following contributions.

Cesarino Bertini, Jacek Mercik and Izabella Stach survey and criticize some models of indirect control of corporations, mainly referring to the evaluation of the power of shareholders and companies with cross-shareholdings. A comparison of various approaches is carried out using two examples, one with and one without a cyclic structure.

Francesc Carreras, Josep Freixas and Antonio Magaña study the voting systems adopted in the European Union Council of Ministers, where major discussions took place during each enlargement of the Union, paying particular attention to the dimension, the egalitarianism and the decisiveness of each system.

Marco Dall’Aglia, Vito Fragnelli and Stefano Moretti consider the criticality of players in a simple game, formalizing their power to blackmail by threatening to leave a winning coalition which they are not critical for. They also analyse the credibility of such threatening behaviour, by evaluating the possibility of forming a different majority.

Michel Grabisch and Agnieszka Rusinowska propose a model of opinion formation based on aggregation functions. They generalize the notion of influential player to influential coalitions and represent it using a (hyper)graph. They propose simple algorithms for determining influential coalitions in various cases.

Manfred Holler and Hannu Nurmi deal with the notion of monotonicity in the theory of voting and the measurement of a priori voting power, focusing on the relationship between opinion aggregation and voting power, with the aim of improving the understanding of the elements that determine the outcome of voting.

Hans Peters, Judith Timmer and Rene van den Brink analyse the distribution of power on a particular communication structure, the invariant digraph, by characterizing some power indices that under suitable hypotheses on the effects of arc addition are related to three well-known indices: the Copeland score, the  $\beta$ -measure and the apex power index.

Joaquín Sanchez-Soriano, Natividad Llorca and Encarnación Algaba apply a bankruptcy approach to the apportionment problem. They show that the constrained equal losses rule coincides with the greatest remainder method. They also propose new properties for governability and test them on apportionment methods in the case of the 2015 Spanish elections.

We thank all the authors for their important contributions and for their availability as reviewers that guaranteed a valuable issue and an efficient publishing process. Particular thanks go to Fioravante Patrone, a friend more than a colleague, who retired several years ago, but is still active in research. He agreed to review a paper, even if he had refused this role at all other times.

An important role was played by David Ramsey whose language expertise was extremely helpful.

Last, but not least, special thanks go to Jacek Mercik, Editor in Chief of Operations Research and Decisions, for his constant presence “in the background” and for his useful suggestions.

*Cesarino Bertini, Vito Fragnelli, Nati Llorca,  
Joaquín Sánchez-Soriano, Izabella Stach*

Guest Editors