Publicacions més rellevants de la línia de recerca:
Teoria de jocs

Referència: Amer, R., Giménez, J. M. and Magaña, A. Accessibility in oriented networks. *European Journal of Operational Research*, **180** (2007), pp. 700–712.

Abstract: The aim of this work consists of allocating a value that allows us to emphasize the importance of each player in a cooperative game when the cooperation possibilities are limited according to the links of an oriented network. The proposed concept of accessibility tries to conjugate the marginal contributions of each node as a game player with the cooperation geometry imposed by the digraph that models the network. We study general properties of this concept and particularly with respect to oriented paths. Concrete applications are proposed.

Referència: Freixas, J. and Molinero, X. Simple games and weighted games: a theoretical and computational viewpoint. *Discrete Applied Mathematics*, **157** (2009), pp. 1496–1508.

Abstract: It is a well–known result in simple games that a game is weighted if and only if it is trade robust. In this paper we propose a variant of trade robustness, that we call invariant–trade robustness, which is enough to determine whether a simple game is weighted. To test if a simple game is invariant–trade robust we do not need to consider all winning coalitions, a reduced subset of minimal winning coalitions is enough. We make a comparison between the two methods (trade robustness and invariant–trade robustness) to check whether a simple game is weighted. We also provide by means of algorithms a full classication using both methods, for simple games with less than 8 voters according to the maximum level of (invariant–)trade robustness they achieve.

Referència: Carreras, F., Llongueras, M. D. and Puente, M. A. Partnership formation and binomial semivalues. *European Journal of Operational Research*, **192** (2009), pp. 487–499.

Abstract: Partnership formation in cooperative games is studied, and binomial semivalues are used to measure the effects of such a type of coalition arising from an agreement between (a group of) players. The joint effect on the set of involved players is also compared with that of the alternative alliance formation. The simple game case is especially considered, and the application to a real life example illustrates the use of coalitional values closely related to the binomial semivalues when dealing with partnership formation and coalitional bargaining simultaneously.