On the Structure of the Core of Balanced Games.

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Abstract: The uniform competitive solutions (u.c.s.) are basically stable sets of proposals involving several coalitions which are not necessarily disjoint. In the general framework of NTU games, the uniform competitive solutions have been defined in two earlier papers of the author (A. Stefanescu: Coalitional stability and rationality in cooperative games. Kybernetika 32 (1996), 483–490, and A. Stefanescu: Predicting proposal configurations in cooperative games and exchange economies. In: Current Trends in Economics (A. Alkan, C. D. Aliprantis and N. C. Yannelis, eds.), Springer Verlag, Berlin 1999, pp. 475–489). The general existence results cover most situations formalized in the framework of the cooperative game theory, including those when the coalitional function is allowed to have empty values.

The present approach concerns the situation when the coalition configurations are balanced. One shows, that if the coalitional function has nonempty values, the game admits balanced u.c.s. To each u.c.s. one associated an "ideal payoff vector" representing the utilities that the coalitions promis to the players. One proves that if the game is balanced, then the core and the strong core consist of the ideal payoff vectors associated to all balanced u.c.s.

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