Essential coalitions for non-balanced games

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Huberman (1980) introduces the notion of essential coalitions. In balanced games essential coalitions have the property of beeing only needed in the computation of the nucleolus of the game. In our paper we provide two generalizations of Huberman's result. Both generalizations give classes of coalitions which are only needed for computing the prenucleolus of an arbitrary TU-game. We also demonstrate that both generalizations are real generalizations of the class of essential coalitions by Huberman (1980), and that the two introduced classes of coalitions are not related to each other.