

127. Zvi Artstein, **Convexity and closure in optimal allocations determined by decomposable measures.** Vietnam Journal of Mathematics 47 (2019), 563-577.

Abstract. A general optimal allocation problem is considered, where the decision maker controls the distribution of acting agents, by choosing a probability measure on the space of agents. The notion of a decomposable family of probability measures is introduced, in the spirit of a decomposable family of functions. It provides a sufficient condition for the convexity of the feasible set, and the concavity of the value function. Together with additional conditions, closure properties also follow. The notion of a decomposable family of measures covers, both, the case of set-valued integrals, and the case of convexity in the space of probability measures.

For a copy of the paper send a request to zvi.artstein@weizmann.ac.il