# Fair Allocations of Joint and Sequential Team Production

Wataru Kitano* David Lowing† Satoshi Nakada‡

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**Abstract**

We study how to allocate the value created by joint and sequential team production when output is realized only if cooperation spans all stages of a project. We model this environment as TU-games with coalition structures, together with a feasibility constraint requiring a coalition to include at least one member from each group. Within this class, we propose a family of allocation rules that interpolates between marginalism and egalitarianism within groups. Our key axiom, *weak joint monotonicity*, links each individual's payoff to two solidarity components as well as to her own marginal contributions: the grand-coalition value and the value generated by other groups. Combined with standard axioms, weak joint monotonicity characterizes the *constrained egalitarian Owen values*, which generalize the in-group egalitarian Owen values to constrained coalition structures. Our results connect the axiomatic theory of monotonic solutions to recent work on cooperative games with diversity constraints.

*JEL classification*: C71, D63.

*Keywords*: TU-games, coalition structures, diversity constraints, Owen value, Shapley value, monotonicity.

*Graduate School of Management, Tokyo University of Science, 1-11-2, Fujimi, Chiyoda-ku, Tokyo, 102-0071, Japan. Email: wataru.kitano9998@gmail.com

†Ecole Normale Superieure de Rennes, CREM, 11 avenue Robert Schuman, 35170 Bruz, France. E-mail: david.lowing@ens-rennes.fr

‡School of Management, Department of Business Economics, Tokyo University of Science, 1-11-2, Fujimi, Chiyoda-ku, Tokyo, 102-0071, Japan. Email: snakada@rs.tus.ac.jp