# Tort law and the Nucleolus for liability problems

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## Abstract

For joint liability problems concerning tort law, a legal compensation scheme may be based on lower and upper bounds of compensation for injury and on case-system consistency. Introducing several properties inspired from this observation, we analyze compensation schemes axiomatically under the situation where causation of the cumulative injury appears in multiple sequences of wrongful acts. These sequences are described by a rooted-tree graph. We show that there is a unique compensation scheme that satisfies three axioms, one about lower bounds of individual compensations, one about upper bounds of individual compensations, and one about case-system consistency. This unique compensation scheme is the Nucleolus of an associated liability game.