The Division of Surplus and the Burden of Proof (with Justus Preusser)

Abstract:

A principal and an agent divide a surplus. Only the agent knows the surplus' true size and decides how much of it to reveal initially. Both parties can exert costly effort to conclusively prove the surplus' true size. The agent's liability is bounded by the revealed surplus. The principal is equipped with additional funds. The principal commits to their own effort and, contingent on who provided evidence, to a division of surplus. With this multitude of instruments, the principal simultaneously motivates the agent to reveal the surplus and to exert effort to share the burden of proof. In optimal mechanisms, the principal exhausts these instruments in a particular order that divides the surplus level into five intervals. Consequently, the induced agent effort first decreases in the surplus and then alternates its slope across the five intervals. The principal's effort always decreases. Applications include wealth taxation, corporate finance, and public procurements.