

COMPARATIVE STATICS, INFORMATIVENESS, AND
THE INTERVAL DOMINANCE ORDER

By John K.-H. Quah and Bruno Strulovici

Abstract: We identify a natural way of ordering functions, which we call the *interval dominance order*, and show that this concept is useful in the theory of monotone comparative statics and also in statistical decision theory. This ordering on functions is weaker than the standard one based on the single crossing property (Milgrom and Shannon, 1994) and so our monotone comparative statics results apply in some settings where the single crossing property does not hold. For example, they are useful when examining the comparative statics of optimal stopping time problems. We also show that certain basic results in statistical decision theory which are important in economics - specifically, the complete class theorem of Karlin and Rubin (1956) and the results connected with Lehmann's (1988) concept of informativeness - generalize to payoff functions that obey the interval dominance order.

Keywords: single crossing property, interval dominance order, supermodularity, comparative statics, optimal stopping time, complete class theorem, statistical decision theory, informativeness.

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Authors' Emails: john.quah@economics.ox.ac.uk bruno.strulovici@economics.ox.ac.uk

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