



## **Adjacent non-manipulability and strategy-proofness in voting domains: equivalence results**

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A plausible incentive compatibility requirement based on behavioral considerations, is that agents only consider manipulations that are "close" to their true preference. In a finite voting environment, this is interpreted as preference orderings that are at a Kemeny distance of one from the true preference ordering. A social choice function (SCF) is adjacent manipulation (AM) proof, if it is immune to such manipulations.

A domain satisfies equivalence if every AM-proof SCF defined on this domain, is also strategy-proof. Sato (2013) provides a necessary condition and a separate, stronger sufficient condition for equivalence.

We extend Sato's results in several directions. We identify a condition, which is necessary for equivalence; in conjunction with Sato's necessary condition, it is sufficient for equivalence for SCF's satisfying unanimity. We also provide an additional, stronger, sufficient condition for equivalence without unanimity. Finally, we show that every unanimous and AM-proof SCF is also group strategy-proof provided equivalence holds.