

Relative P-Bipolarisation Measurement with Generalised Means and Hybrid Lorenz Curves

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Paper Abstract: We propose the first class of relative bipolarisation measures which are both *percentile-independent and rank-independent*. These are based on difference of generalised means. We also propose a relative bipolarisation pre-ordering based on pairs of *hybrid Lorenz curves* which combine features of both relative and generalised Lorenz curves. Considering different ways to divide distributions into two mutually exclusive and exhaustive groups using a percentile (e.g. the median), we also characterize the very few instances in which one distribution can dominate another one in terms of relative bipolarisation across the whole percentile domain. We illustrate the measures and curves with a comparison of the US versus Germany across time.