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

Marek Kosny
Wrocław University of Economics, Poland

Gaston Yalonetsky
Leeds University Business School, United Kingdom

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.