

A NOTE ON INEQUALITY CRITERIA

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Abstract. The *absolute differentials ordering* (ADO) and the *relative differentials ordering* (RDO) have been introduced as suitable alternative inequality criteria to *Lorenz ordering* (LO). We provide two new alternative proofs that ADO and RDO are sub-orderings of LO. Furthermore, we point out some “paradoxical situations”, where these two different partial orderings fail to rank alternative income distributions.

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REFERENCES

- [1] ATKINSON, A. B., *On the measurement of Inequality*, *Journal of Economic Theory*, **2** (1970), 244–263.
- [2] CHATEAUNEUF, A., *Decreasing inequality: an approach through non-additive models*, w.p.96.58 (1996) CERMSEM, Université de Paris I.
- [3] DASGUPTA, P., A. K. SEN, AND D. STARRET, *Notes on the measurement of inequality*, *Journal of Economic Theory* **6** (1973), 180–187.
- [4] KARLIN, S., *Total Positivity, volume I*, Stanford University Press, Stanford, California, 1968.
- [5] HARDY, G. H., J. E. LITTLEWOOD, AND G. POLYA, *Inequalities*, Cambridge University Press, London, 1934.
- [6] MARSHALL, A. W., AND I. OLKIN, *Inequalities: Theory of Majorization and its Applications*, Academic Press, New York, 1979.
- [7] MARSHALL, A. W., D. W. WALKUP AND R. J. B. WETS, *Order-preserving functions: applications to majorization and order statistics*, *Pacific Journal of Mathematics*, **23** (1967), 569–585.
- [8] MOYES, P., *Inequality reducing and inequality preserving transformations of incomes: symmetric and individualistic transformations*, *Journal of Economic Theory*, **63** (1994), 271–298.
- [9] PRESTON, I., *Ratios, differences, and inequality indices*, Institute for Fiscal Studies Working Paper W90-9, 1990.
- [10] ROTHSCHILD, M. AND J. E. STIGLITZ, *Some further results on the measurement of inequality*, *Journal of Economic Theory*, **6** (1973), 188–204.
- [11] SEN, A. K., *On Economic Inequality* – (Second eds), extended edition with J. Foster, Oxford, Clarendon Press, 1997.