

## Research Project

### Majorization and the Lorenz order: Theory and applications

#### Project funded by own resources

**Project title** Majorization and the Lorenz order: Theory and applications

**Principal Investigator(s)** [Kleiber, Christian](#) ;

#### Organisation / Research unit

Departement Wirtschaftswissenschaften / Ökonometrie und Statistik (Kleiber)

**Project start** 01.10.2007

**Probable end** 31.12.2025

**Status** Active

The partial order of majorization is omnipresent in applied mathematics, statistics and various fields of application. It suggests comparing two given vectors, for example representing the incomes of two populations, by comparing the partial sums of their ordered entries. A slight generalization, the Lorenz order, also figures prominently in inequality measurement, where the Lorenz curve is used for visualizing and ranking income distributions. This project investigates various applications of majorization and the Lorenz order, among them inequality measurement and related problems in economics, Condorcet jury theorems in political science, statistical distribution theory, inequalities for special functions, and possibly even problems in the hard sciences.

**Keywords** Majorization, Lorenz order, stochastic orders, inequalities, economic inequality

#### Financed by

University funds

#### Add publication

##### Published results

103110, Kleiber, Christian, The Lorenz curve in economics and econometrics, 978-0-415-44337-1 (hbk.) ; 978-0-203-92792-2 (ebk), Advances on income inequality and concentration measures, Publication: Book Item (Buchkap., Lexikonartikel, jur. Kommentierung, Beiträge in Sammelbänden etc.)

#### Add documents

#### Specify cooperation partners

ID	Kreditinhaber	Kooperationspartner	Institution	Laufzeit - von	Laufzeit - bis
929276	Kleiber, Christian	Zitikis, Ricardas, Professor	University of Western Ontario	01.01.2010	31.12.2020