Non-constructive sets of reals and infinite utility streams

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Social welfare relations (SWRs, briefly) satisfying Pareto and equity principles on infinite utility streams has revealed a non-constructive nature. In this talk we present some connections with the Baire property, answering Problem 11.14 posed in [1]. Furthermore we also investigate the nature of SWRs satysfying distributional equity principles and we introduce new generalised versions able to compare more systematically a larger number of infinite utility streams. We use techniques from descriptive set theory and forcing theory to prove results about the representation of such SWRs, specifically when in those cases showing a non-constructive nature.

References

 N. Bowler, C. Delhommé, C.A. Di Prisco, A.R.D. Mathias, *Flutters and Chameleons*, preprint, 2017.