The Axiomatic Approach to Selection from Sets

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Abstract

We study the problem of evaluating whether the selection from a set is close to the ranking of the set determined by a measurable criterion. Our main result is that three axioms, two naturally capturing "dominance", and a stronger one imposing a form of symmetry in the comparison of selections are sufficient to order completely all the selections from sets, according to how close they are to the ranking. This is given by a very simple index, which is a linear function of the sum of the ranks of the selected elements. The paper ends by relating this index to the existing literature on distance between rankings, and also offers a practical application of the index.

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