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Jonathan K Hodge* (hodgejo@gvsu.edu), Department of Mathematics, Grand Valley State University, Allendale, MI 49401. *Separable Preferences and Referendum Elections.*

Whenever voters are forced to express their preferences simultaneously on multiple issues, interdependencies within these preferences can lead to election outcomes that are unsatisfactory or even paradoxical. The notion of separability is used to describe preferences that are free from such interdependencies.

In this talk, we will survey some of the more recent mathematical contributions to the theory of separable preferences. In particular, we will show that separable preferences are structurally complex, rare, and sensitive to small changes. We will also note some preliminary connections to other areas of mathematics. (Received September 07, 2007)