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Cluster Analysis of Heterogeneous Data on Rankings and Flags. Preliminary report.

In 2007, Busse, Orbanz and Buhmann devised an efficient method for performing cluster analysis of particular kinds of ranking data. Their work focuses on data comprised of a mixture of complete rankings and "top-t" partial rankings, where t is allowed to vary. Here, we extend their method to partial rankings of arbitrary type and go on to describe a similar approach for cluster analysis of data on the flag variety for $GL_n(\mathbb{F}_q)$. (Received September 21, 2010)