An Introduction to Graph Theoretic Tools for Sensory and Consumer Scientists

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Description of the content

In this three-hour tutorial, we explain how recently developed tools from the mathematical field of graph theory allow Sensory and Consumer Scientists to solve commonly occurring problems that were previously too large to be approachable. In particular, we present real data from a project designed to find the best combinations of flavors, benefits, and images to include in a product line of sparkling fruit-juice beverages. We use these data to motivate our explanation of graph theoretic concepts, notably the concepts of “cliques” and “independent sets,” as we search for best possible product bundles.

Intended audience

No prior mathematical or statistical knowledge is required - this course is intended for a general audience.