
Aesthetic considerations for the Min-Max K-Windy Rural Postman Problem

Isaac Plana^{*†1}, Angel Corberán¹, Bruce Golden², Oliver Lum², and José Maria Sanchis³

¹Universidad de Valencia – Spain

²University of Maryland – United States

³Polytechnic University of Valencia – Spain

Abstract

The aesthetic quality of routes is a feature of route planning that is of practical importance, but receives relatively little attention in the literature. Several practitioners have pointed out that the visual appeal of a proposed set of routes can have a strong influence on the willingness of a client to accept or reject a specific routing plan. While some work has analyzed algorithmic performance relative to traditional min-sum or min-max objective functions and aesthetic objective functions, we are not aware of any work that has considered a multi-objective approach. This work considers a multi-objective variant of the Min-Max K-Windy Rural Postman Problem, discusses several formulations of the problem, and presents computational experiments with a heuristic algorithm.

*Speaker

†Corresponding author: isaac.plana@uv.es