
VERA TRAUB, ETH Zurich

Improving the Approximation Ratio for Capacitated Vehicle Routing

We devise a new approximation algorithm for capacitated vehicle routing. Our algorithm yields a better approximation ratio for general capacitated vehicle routing as well as for the unit-demand case and the splittable variant. Our results hold in arbitrary metric spaces. This is the first improvement on the classical tour partitioning algorithm by Haimovich and Rinnooy Kan [1985] and Altinkemer and Gavish [1987].

This is joint work with Jannis Blauth and Jens Vygen.