Some Exciting New Problems in Vehicle Routing

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Abstract

The Vehicle Routing Problem (VRP) is one of the most studied optimization problems because it has many practical applications in logistics and transportation and it is so challenging to solve. During the last decade, many new variants of the VRP have been proposed. Some incorporate new constraints (e.g., parallelization and balance) or practical features, such as the on-board rearrangement of the load. Others integrate various phases of the supply chain planning process, as in inventory routing, or consider new technologies, such as electric/hybrid vehicles, RFID, telemetry, robots, and drones. Still others focus on the environmental consequences of vehicle routing. In addition, connections between vehicle routing and big data are starting to emerge. We outline some of this exciting, recent work in our presentation.

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