

Online Delay Management: Beyond Competitive Analysis

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Zusammenfassung

We consider the Online Delay Management Problem on a single train line (ODMP). A train serves a network with a path topology. At each station passengers can be either on time or have a delay delta. Assuming that we know in advance how many passengers want to embark the train at every station and where they alight, we have to decide where the train should wait if the number of delayed passengers is revealed in an online fashion. So far the ODMP has only been analyzed using competitive analysis. We deal with different approaches for online optimization problems. First, the ODMP is considered by means of average-case and average-case competitive analysis. Finally, we present a stochastic programming framework for the ODMP.