Abstract

In routing scheduling problems, the jobs are located at the vertices of an undirected network, and the machines must travel along the network to process the jobs. In the talk, we introduce some results on the single machine problem with job release times on a line, a tree or a cycle, as well as the routing open shop and flow shop scheduling problems.

Abstract

In this talk, we discuss semi-online scheduling on two uniform machines under a grade of service (GoS) provision, where one machine with speed one can process all jobs, and the other machine with speed s (s>0) can only process some jobs. The objective is to minimize the makespan. We consider two variants, where the total size of jobs or the optimal makespan is known in advance. For both variants, we design optimal algorithms with the competitive ratio \( \min\{\frac{1+2s}{1+s}, \frac{1+s}{s}\} \).