Scheduling aircrafts' engines repair process: a mathematical model

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In this talk, we discuss a scheduling problem that originated at TAP - Maintenance & Engineering - the maintenance, repair and overhaul organization of Portugal's leading airline. In the repair process of aircrafts' engines, the operations to be scheduled may be executed on a certain workstation by any processor of a given set, and the objective is to minimize the total weighted tardiness.
A mixed integer linear programming formulation, based on the flexible job shop scheduling, is presented here, along with computational experiment on a real instance, provided by TAP-ME, from a regular working week. The model was also tested using benchmarking instances available in literature.

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