



Seminario organizzato nell'ambito del Corso di Dottorato in Lavoro, Sviluppo e Innovazione di Unimore – FMB

Personnel scheduling during Covid-19 pandemic

**Mercoledì 25 novembre 2020
ore 11:00**

Relatore

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Abstract:

This presentation addresses a real-life personnel scheduling problem in the context of Covid-19 pandemic, arising in a large Italian pharmaceutical distribution warehouse. In this case study, the challenge is to determine a schedule that attempts to meet the contractual working time of the employees, considering the fact that they must be divided into mutually exclusive groups to reduce the risk of contagion. To solve the problem, we propose a mixed integer linear programming formulation (MILP). The solution obtained indicates that optimal schedule attained by our model is better than the one generated by the company. In addition, we performed tests on random instances of larger size to evaluate the scalability of the formulation. In most cases, the results found using an open-source MILP solver suggest that high quality solutions can be achieved within an acceptable CPU time. We also project that our findings can be of general interest for other personnel scheduling problems, especially during emergency scenarios such as those related to Covid-19 pandemic.

Il seminario si terrà in italiano

L'iscrizione è obbligatoria e dovrà essere effettuata tramite il modulo on line disponibile sul sito della Fondazione Marco Biagi: <https://www.fmb.unimore.it/eventi/personnel-scheduling-during-covid-19-pandemic/>