Shift scheduling with autonomous agents

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Abstract

Employees' work breaks can have a significant impact on the performance of production and service systems. Therefore, managers are interested in scheduling breaks so as to keep safe the level of service.
On the other hand, a rigid enforcement of breaks remarkably affects employees' well-being. This conflict is getting harder and harder in large organizations. We propose a robust optimization model for shift scheduling, where employees are free to decide when to have breaks within the regulatory restrictions. Case studies in call center industries are documented, showing the trade off between industrial costs and employees' autonomy.

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