



Liberté Égalité Fraternité

# Optimization of airport operations to improve passenger intermodality

Geoffrey Scozzaro

Supervisors:

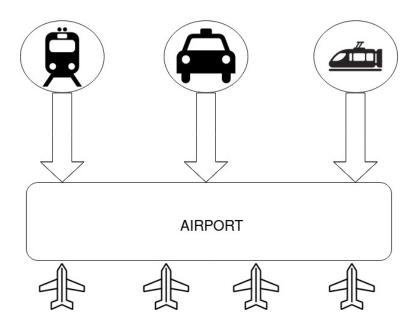
Eric Féron
King Abdullah
University of Science
and Technology

Catherine Mancel Ecole Nationale de l'Aviation Civile





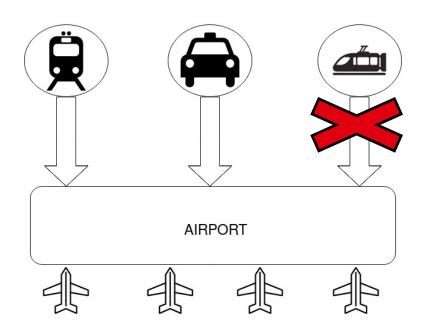
### **Context**

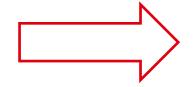






#### **Context**





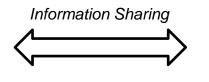
Risk of stranded passengers at the airport





## **Objective**





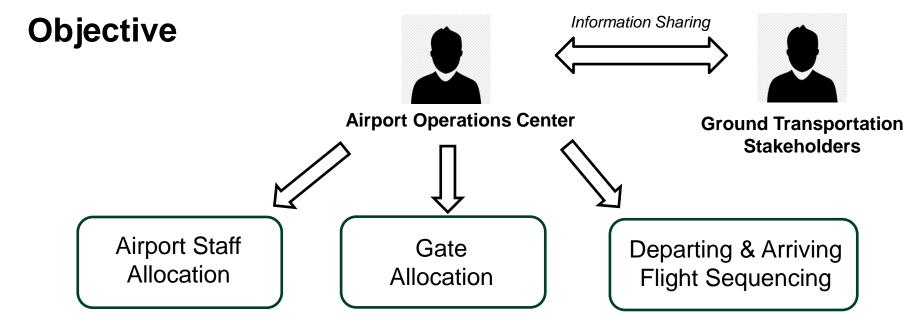


**Airport Operations Center** 

Ground Transportation Stakeholders

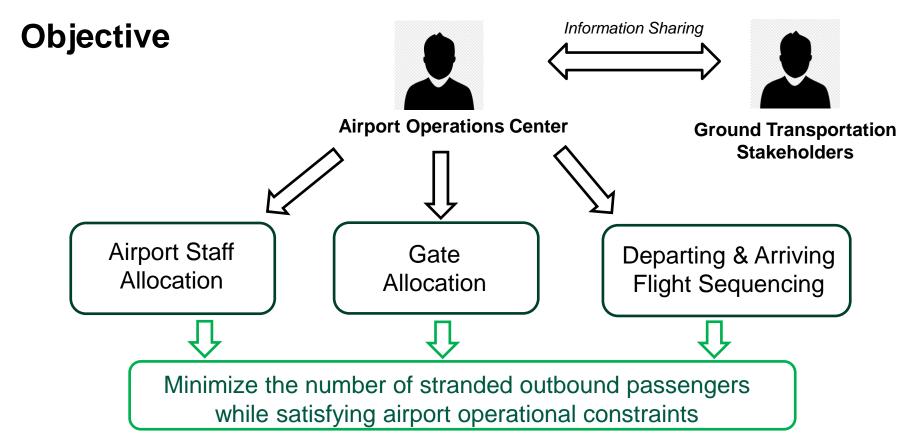








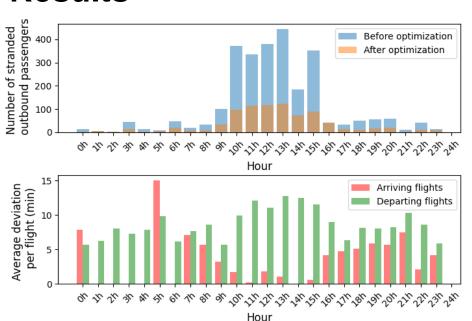




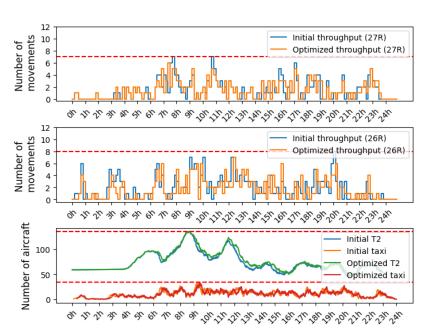




#### Results



Initial schedule vs optimized schedule (objective function)



Initial schedule vs optimized schedule (constraint satisfaction)



#### **Publications**

#### Published:

Buire, C., Scozzaro, G., Marzuoli, A., Feron, E., & Delahaye, D. (2021, December). A Year Into the Pandemic: a Passenger Perspective on its Impact at Paris-Charles de Gaulle Airport. In 2021 IEEE International Conference on Big Data (Big Data) (pp. 2925-2935). IEEE.

#### Pending:

Scozzaro, G., Ji, M., Delahaye, D., Mancel, C & Feron, E. (February, 2022) Flight Rescheduling to Improve Passenger Journey during a Disruptive Event. In 11th International Conference on Research in Air Transportation (ICRAT 2022).

Monmousseau, P., Scozzaro, G., Buire, C., Marzuoli, A., Delahaye, D., & Feron, E. (February,2022) Analyzing and comparing door-to-door travel times for air and rail transportation using publicly available data. In *Transportation Research Part E: Logistics and Transportation Review* 





Liberté Égalité Fraternité

# Thank you for your attention!