



## Séminaire conjoint / Joint Seminar

Chaire de logistique et de transport et Chaire de recherche du Canada en distributique /  
Chair in Logistics and Transportation and Canada Research Chair in Distribution Management

### Rennan Danilo Seimetz Chagas

Universidade Federal do Rio de Janeiro - UFRJ, Brésil/Brazil  
Industrial Engineer Department – PEP – Operations Research  
LORDE – Laboratory of Resource Optimization, Operational Simulation and  
Decision Support in the Oil Industry



#### THE PROBLEM OF SCHEDULING OFFSHORE SUPPLY PORT OPERATIONS

**Abstract:** The oil exploration and production industry in Brazil is highly concentrated in offshore units. The national oil agency states in the 2016 statistical yearbook that national oil production reached 2.4 million barrels/d, 93.4% of which was extracted from sea fields on the previous year. This production concentration in marine units should increase further, with the growing exploitation of pre-salt fields. Thus, the development of decision-making mechanisms to better define supply vessel departure times from ports has considerable importance in ensuring operation efficiency and reliability. This study aims to present and evaluate mixed integer programming models for port berth scheduling. Two problem formulation types are developed and tested on instances. The final proposed model prove to be very useful for realistic applications, reducing the planning time from days to a few hours or, in some cases, seconds.

**Note:** Rennan Chagas is in a PhD internship at CIRRELT, under the supervision of Professor Gilbert Laporte. His main fields of research are applications of operations research, petroleum logistics and integer programming. At LORDE, he has worked with some logistics problems faced by Petrobras, the Brazilian national oil company.

MARDI / TUESDAY

12 septembre 2017 /  
September 12th, 2017  
10h30

Salle / Room 5441  
Pavillon André-Aisenstadt  
Université de Montréal

Ouvert à tous / Open to all

Organisateur / Organizer  
Gilbert Laporte

