

## SÉMINAIRE CONJOINT

### Supplying off-shore activities: From problem analysis to modeling

Séminaire conjoint - Chaire de recherche industrielle du CRSNG en management logistique et le Centre de recherche sur les transports / CIRRELT.

Cet événement aura lieu le mercredi 2 mai 2007, à 10h30, à l'ESG UQAM, salle R-R110. Une période d'échanges et questions suivra à la fin.

Conférencier invité: Professeur **Stein W. Wallace**, Molde University College, Norvège, et Chinese University of Hong Kong, en collaboration avec **Bjørnar Aas**, candidat au doctorat.

#### RÉSUMÉ:

Off-shore oil and gas production is a major activity in Norway and other coastal nations. Supplying these activities with equipment and people is a major undertaking, both during drilling operations and production, particularly if the weather conditions are harsh. This presentation will focus on the activities in The Norwegian Sea, where production takes place at depths exceeding 1000 meters of water, and where weather can stop all supplies for weeks. The purpose of the talk is to outline the real case, discuss how modeling can take place, and what the major issues turned out to be. We end up focusing on how to describe wave forecasts as stochastic processes in cooperation with professional meteorologists, and how to use these forecasts for routing and loading vessels in light of uncertain weather conditions. A different issue turned out to be what parts of the supply chain should be outsourced in such an uncertain environment with extremely high failure (shortage) costs. There is also an issue of how to perform vehicle routing when both the vessels and the customers are capacity constrained. The goal in this presentation is not to present solutions, but rather to illustrate the modeling process.

