



SÉMINAIRE CONJOINT / JOINT SEMINAR

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du **CRSNG** en management logistique
NSERC Industrial Research Chair
in Logistics Management



«AN INTRODUCTION TO CRITICAL INFRASTRUCTURE PROTECTION: PROBLEMS AND MODELS»

Résumé / Abstract :

The dramatic events of September 2001 determined the development of a study and research field referred as *Homeland Security*. In this context, great importance assumes the theme of *Critical Infrastructure Protection (CIP)*, i.e. the protection of infrastructures with such relevance from the economic, organizational, financial, or symbolic point of view, that their failure or disruption (*interdiction*), due to natural disaster or deliberate sabotage, would be very damageable for the entire country.

Logistic infrastructures within a supply chain system are critical as well, since their interdiction may lead to loss of service or excessive costs (*failure costs*), or both, in providing the service or delivering the goods to the final clients.

Based on the concept of failure cost and starting from the classical facility location literature (PMP and UFLP), optimization models have been developed for CIP. Three problems with related models will be presented: identification of critical infrastructures of a logistic system; design of a '*reliable*' logistic system, i.e., a system well performing even in the case of failures; fortification of a logistic system in order to make it more reliable to *interdiction*.

Note :

Antonio Sforza est professeur de recherche opérationnelle au département d'informatique de l'Université degli Studi di Napoli Federico II. / Antonio Sforza is professor of Operational Research at the Department of Computer Science and Systems of the Università di Napoli Federico II.

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JEUDI / THURSDAY

**22 juillet 2010 /
July 22nd, 2010**

11h00

**Salle / Room 5441
Pavillon André-Aisenstadt
Université de Montréal**

Bienvenue à tous / Welcome to all

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