



# Séminaire organisé conjointement par le CIRRELT et le Département OSD

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### OUTILS D'AIDE À LA DÉCISION POUR LA GESTION DE LA PRODUCTION HYDROÉLECTRIQUE

#### Abstract:

Stochastic optimization methods have been developed over the last few decades to help water managers who are regularly confronted with making complex decisions about reservoir releases in the context of streamflow uncertainties. However, a comparative evaluation of the performance of the methods in an operational context is not an easy task, which makes it difficult to select the approach that offers the best performance. We present a comparison between four optimization algorithms in a test bed in which ensemble streamflow predictions are updated each time a decision is taken. The comparison was performed on the Rio Tinto Alcan (RTA) hydropower system in Québec, Canada, which consists of six generating stations in series and three major reservoirs. The results showed that methods on the basis of scenarios prove superior to methods on the basis of probability distributions. Moreover, using an anticipative deterministic approach to calculate the release decisions for the first period was found to be an inadequate strategy.

**Note:** La présentation sera faite en français

MERCREDI

23 mars 2016  
15 h 30

Local 4221  
Pavillon Palasis-Prince  
Université Laval

Ouvert à tous

**Organisateurs:**  
*Leandro Coelho*  
*Bernard Lamond*



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