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Thesis Title:
Adaptive Dual Control of Topic-Based Information Retrieval

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Citation:
This thesis studied the problem of optimization of information retrieval in search sessions which often involves conflicting goals of active exploration of the user’s information need and satisfaction of the user on each iteration. Approximate linear optimization models for multistage stochastic programming that made the optimization feasible and methods of building the input probability distribution were proposed. The experimental results showed superiority of the proposed methods over the conventional information retrieval methods when all the underlying assumptions were satisfied.