

# COMP 7210: Assignment 6

Due: February 15, 2012, 12 Noon

**Objective:** Evaluate the experimental evaluation of a research paper.

**Detailed Instructions:**

0. Download one of the three papers linked on the website:

- a) Solomon *et al.*, “Collaborative Multi-Swarm PSO for Task Matching using Graphics Processing Units”.
- b) Grossman and Balakrishnan, “The bubble cursor: enhancing target acquisition by dynamic resizing of the cursor’s activation area.”
- c) Beckmann *et al.*, “The  $R^*$ -tree: An Efficient and Robust Access Method for Points and Rectangles.”

Read the paper with a particular attention to the experimental evaluation.

1. Answer the following questions about your paper.

- a) What are the hypotheses of the paper? Are the hypotheses supported by the experimental data?
- b) For each experiment in the paper, give the dependent variables, independent variables and any control variables mentioned by the authors.
- c) If an experiment has multiple independent variables, what is the experimental design used? Have the authors performed a complete factorial design? If not, have they explained why?
- d) In your opinion, have the authors performed a solid experimental evaluation? If you feel that there are areas that could be improved, be specific about them in relation to the answers provided in part a). If the evaluation was sufficient, explain why.

2. Submit a **PDF** file by email to `mdomarat@cs.umanitoba.ca`. Please name your file `A6FirstName.pdf` (e.g., I would submit a file called `A6Mike.pdf`).