1 Literature Review

Each of you is to provide a literature review due Thursday, February 15th on the topics assigned to you in table 1. This literature review will consist of at least 10 double spaced pages (in the standard thesis format) and will include a discussion describing the topic for a general audience followed by a review of recent research results in the topic area. Note, in this literature review we are principally interested in the topic as it applies to the implementation, performance, and scalability of parallel applications. These topics were specifically selected to help give background for the final project. Note, that the literature review should include some citations to recent papers that were published in the last five years as well as foundational papers that describe early work. More than likely, recent papers will discuss implementations on specialized accelerators such as General Purpose Graphic Processing Units (GPGPUs) or Intel's Phi Many Integrated Core (MIC) technology. Including these terms in searches may help to find more recent publications.

You will also need to prepare to give an oral presentation to the class on your literature review. The presentation will be 18-20 minutes with 5-7 minutes for questions. We will have three presentations per day starting on February 15th. Who will speak on which day is to be decided.

The papers will be submitted as a PDF document by email to the instructor[1]. Note that the final papers will be shared with other students in the class and be used as a reference by all students for the final project. Also note, the literature review is expected to be the independent work of each student. Be careful to cite sources and not plagiarize. Please refer to the University Honor Code to determine this class policies regarding obligations expected of students and the consequences of not following the Honor Code.

Student name	Topic
Amitra Dhakal Ghimire	Space Filling Curves with applications to HPC
Sarah Harun	Load Balancing Techniques for N-Body Simulations
MD Huda	Parallel Direct Simulation Monte Carlo (DSMC)
Brannon Jordon	Parallel Random Number Generation (PRNG) and Suitability of PRNG for Monte Carlo Simulations
Alexander Monnet	Parallel Discrete Event Simulations
Tyler Narmore	Parallel Particle in Cell Algorithms

Table 1: Topic Assignments

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[1] *email:* `luke@cse.msstate.edu`