

CSCS699 (Extreme-Scale Quantum Simulations) Final Project

Due: May 9 (Wed), 2018 (email to anakano@usc.edu)

Submit a written report by May 9 (Wed). In addition, each student is required to make a brief (~5 minutes) presentation about his/her project at one of the last two classes — either April 23 (Mon) or 25 (Wed). Please see me to discuss your potential project by April 13 (Fri), so that we can agree on your topic.

Project: Choose one of the following two options.

1. Apply the QXMD code (https://github.com/USCCACS/QXMD_Course) to solve an exciting scientific problem of your interest, or enhance the code by either implementing a new method or tuning its performance on modern parallel-computing platforms.
2. Write a short research proposal containing a novel idea regarding extreme-scale quantum simulations. The proposal should contain: Goal, specific objectives, current state of the knowledge/previous work, techniques to be used, and expected results.