

Improved Trial Wave Functions for Nuclear Quantum Monte Carlo

Cody L. Petrie
Advisor: Kevin Schmidt

Hacker House August 2018

Arizona State University
Tempe, AZ

- The nuclear physics problem
- Quantum Monte Carlo
- Algorithm and application to super computer
- demo about supercomputers

Human Supercomputer - 4 Processors

$$\frac{a_1 * b_1 + c_1}{d_1 * e_1^2} + \frac{a_2 * b_2 + c_2}{d_2 * e_2^2} + \frac{a_3 * b_3 + c_3}{d_3 * e_3^2} + \frac{a_4 * b_4 + c_4}{d_4 * e_4^2}$$