XSEDE

Extreme Science and Engineering Discovery Environment

Programming for high(er) performance

Presented by:

- Steve Lantz - steve.lantz@cornell.edu

With thanks to:

- Roberto Camacho - rcamachobarranco@utep.edu

Goals for the rest of the day

1. Write program to compute π using Monte Carlo method **X**
2. Add a variant to do the same computation with NumPy
3. Add timing routines to quantify performance of each way
4. Loop the π calculation to get error statistics
5. Re-bin the π data to get an idea of the convergence rate
6. Parallelize the looped π calculation to with multiprocessing
7. Set up different random seeds for each parallel task
8. Take the program to Stampede2! (major supercomputer)

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Estimating simulation accuracy with statistics

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High performance computing and XSEDE

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