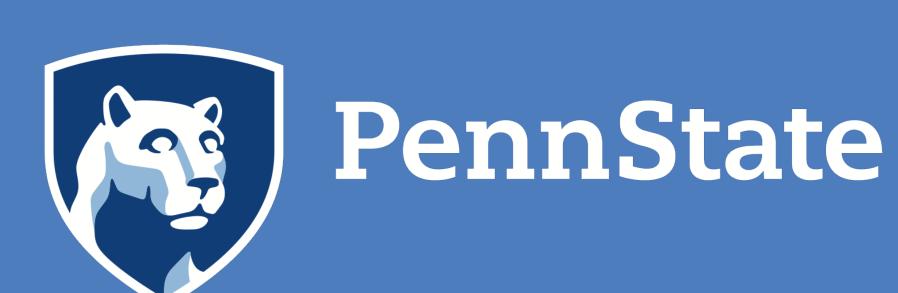
Parallel Implementation of Linear System Solvers Weiming Hu*

Geoinformatics and Earth Observation Laboratory Dept. of Geography and Institute for CyberScience The Pennsylvania State University weiming@psu.edu*



Parallelization
Application in weather model output statistics



Serial and Parallel Implementation

Shared memory parallelization: OpenMP Distributed memory parallelization: OpenMPI

Direct and Iterative Solvers

Direct solver: normal method Iterative solver: Jacobi method

Profiling

Shared memory parallelization: OpenMP Distributed memory parallelization: OpenMPI

Weather Model Output Statistics

Analog Ensemble explained. Example results shown.



Acknowledgments

I would like to express my gratitude to the instructors of CSE 597, Dr. Adam Lavely and Dr. Christopher Blanton for the excellent organization and guidance for the course. I would like to also thank my advisor, Prof. Guido Cervone, for mentoring and guiding me.