



Franklin Bettencourt & Anik Chaturbedi

anik.chaturbedi@rutgers.edu

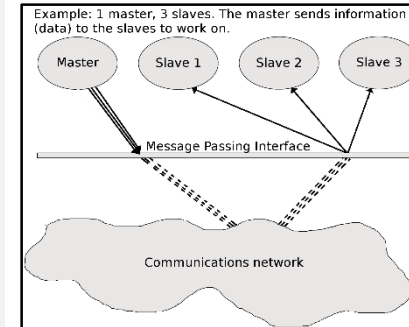
10 x 10 Spatial Bins \approx 10 Times Slower than 1 Spatial Bin

Problems in Parallelization:

- PBM being a very complicated model with interdependence between number densities of different particle classes inhibits trivial computational work distribution.
- Time-loop can not be parallelized because of the temporal dependence of particle size distribution.

Solutions:

- Parallelize the evaluation of particle transfer rate between different size bins INSIDE different spatial bins.
- Or parallelize small parts which will result in less data transfer.



* High Performance Computing Center North

