

Slide 1

Administrivia

- Reminder: Homework 3 due Wednesday. (And Homework 2 was due two weeks ago.)

Slide 2

Heat-Diffusion Example, Continued

- Last time we looked at some code for parallel versions of the heat-diffusion example. There's more . . .
- With OpenMP, the first solution has two parallel for loops. That generates two implicit barriers. Seems wasteful, since we really don't need the first one. How to do better?
- With MPI, we talked (briefly!) about how to make use of *Distributed Array* to spread out the data among processes, but not about how to print it out. How to do that?
- And what about doing this problem with OpenCL? turns out that there are some issues, such as the memory hierarchy, and not being able to synchronize among workgroups.

Homework 3 — MPI

- Like the heat-diffusion problem, this problem fits the *Geometric Decomposition* pattern.
- An OpenMP version should be fairly straightforward.
- An MPI version is trickier, but it's a good place to use the *Distributed Array* pattern (for the 2D arrays). (Discuss how to do that?)

Slide 3

Minute Essay

- None — sign in.

Slide 4