

Iowa High Performance Computing Summer School 2012

Schedule of Lectures and Activities

Dates: June 6–8, 2012
 Location: 2523 UCC Training Room
 Faculty: Professor Gregory Howes University of Iowa
 Professor William Dorland University of Maryland
 Professor Erik Schnetter Perimeter Institute for Theoretical Physics

Wednesday, 6/6		
Time	Course	Lecturer
8:15–9:00am	Arrival and Getting Online	
9:00–9:30am	Welcome and Introductions	All Faculty
9:30–10:15am	Introduction to High Performance Computing	Howes
10:15–10:30am	Break	
10:30–11:30am	MPI Programming	Dorland
11:30–12:15pm	Hands-on Exercises	
12:15–1:30pm	Lunch	
1:30–2:45pm	Hands-on Exercises	
2:45–3:30pm	Design of Parallel Algorithms	Howes
3:30–4:00pm	Introduction to Parallel Hydrodynamics Code HYDRO	Howes
4:00–5:00pm	Hands-on Exercises	
Thursday, 6/7		
Time	Course	Lecturer
9:00–10:30am	Multi-threading and OpenMP	Schnetter
10:30–12:00pm	Hands-on Exercises	
12:00–1:30pm	Lunch	
1:30–3:00pm	GPU Computing and CUDA Programming	Howes
3:00–5:00pm	Hands-on Exercises	
Friday, 6/8		
Time	Course	Lecturer
9:00–10:30am	Parallel Performance and Optimization	Schnetter
10:30–12:00pm	Hands-on Exercises	
12:00–1:30pm	Lunch	
1:30–2:30pm	The Practice of High Performance Computing	Howes
2:30–4:00pm	Hands-on Exercises	
4:00–4:30pm	Evaluations, Questions, and Concluding Remarks	All Faculty