

# Schedule for online MPI course

Day 1	
9:00	Welcome, general intro
9:10	Lecture: concept of parallel and MPI - Joachim
9:30	Demo/Tutorial: Running MPI
9:45	Lecture: Initialisation, Communicators - Joachim
10:30	<i>Break</i>
10:45	Demo: Hello world – by language (C: Joachim F: Pedro P: Xin)
11:00	Lecture: Point-to-point - Soheil
11:45	<b>Exercise:</b> Parallel code, collecting partial results: Pi as a sum (C: F: P: )
12:20	Questions and Warp-up
12:30	<i>Close</i>

Day 2	
9:00	Recap day 1
9:10	Lecture: Non-blocking and deadlock - Joachim
10:00	Demo: Message around a ring (C: Soheil F: Joachim P: Xin)
10:45	<i>Break</i>
11:00	Lecture: Collectives - Pedro
11:45	Live Coding: 2-D integration (Pedro leading, break-out sessions) (C: Roberto F: Pedro P: Xin/Joachim ) Exercise PI using collectives
12:20	Questions and Wrap-up
12:30	<i>Close</i>

Day 3	
<b>9:00</b>	Demo of DDT debugger (use message around a ring as demo code - recap) - Joachim
<b>9:45</b>	Hands on DDT use DDT on your samples
<b>10:30</b>	<i>Break</i>
<b>10:45</b>	Lecture: Splitting Communicators - Soheil
<b>11:15</b>	Exercise: Collectives in sub-groups
<b>12:20</b>	Questions and Wrap-up
<b>12:30</b>	<i>Close</i>

Day 4	
<b>9:00</b>	Recap day 3
<b>9:10</b>	Lecture: Derived data and user defined reductions (C, C++, Fortran) –Joachim Lecture: Transferring NumPY objects in Python – Xin
<b>9:45</b>	Demo of derived data or user defined reductions – Joachim Demo Transferring NumPY objects in Python – Xin
<b>10:30</b>	Break
<b>10:45</b>	Lecture: MPI performance – Pedro
<b>11:30</b>	Exercise on performance
<b>12:15</b>	Wrap up/Questions
<b>12:30</b>	<i>Close</i>