

Schedule for Climate Change Summer School

Monday July 14 *Introduction and Overview*

9:30-10:15 Intro to MSRI, goals of school, structure and expectations etc., any housekeeping issues

10:15-11:00 Coffee break, getting to know each other!

11:00-12:30 Introduction to climate science (Inez Fung)

12:30-2:00 Lunch break

2:00-3:00 Overview of climate data (Inez Fung)

3:00-3:30 Tea

3:30-5:00 Matlab Tutorial (Eric Kostelich)

Tuesday July 15 *Basics of the Climate*

9:00-10:00 Energy balance (Inez Fung)

10:00-10:30 Coffee break

10:30-11:30 Snowball Earth (KK Tung)

11:30-12:30 Climate statistics (David Camp)

12:30-2:00 Lunch

2:00-3:00 Discussion

3:00-3:30 Tea break

3:30-5:00 Lab: climate data

Wednesday July 16 *Mathematical Background*

9:00-10:00 Introduction to ideas of dynamical systems (Mary-Lou Zeeman)

10:00-10:30 Coffee break

10:30-11:30 Equations of GFD (Chris Jones)

11:30-12:30 Introduction to stochastic systems (Rachel Kuske)

12:30-2:00 Lunch

2:00-3:00 Discussion

3:00-3:30 Tea break

3:30-5:00 Lab: climate statistics

Thursday July 17 *Modeling the climate*

9:00-10:00 Concepts of climate sensitivity (KK Tung)

10:00-10:30 Coffee break

10:30-12:00 Climate models (Inez Fung)

12:00-12:30 Discussion about projects

12:30-2:00 Lunch

2:00-3:00 Discussion

3:00-3:30 Tea break

3:30-5:00 Lab: climate models

Friday July 18 *Including Data*

9:00-10:00 Introduction to data assimilation (Chris Jones)

10:00-10:30 Coffee break

10:30-11:30 Data assimilation issues in weather and climate (Eric Kostelich)

11:30-12:30 A statistical view (David Camp)

12:30-2:00 Lunch

2:00-3:00 Discussion

3:00-3:30 Tea break

3:30-5:00 Lab: More on climate models

Monday July 21 *Data Assimilation*

9:00-10:00 Weather and large climate models (Eric Kostelich)

10:00-10:30 Coffee break

10:30-12:30 DA in large models (Eric Kostelich)

12:30-2:00 Lunch

2:00-3:00 Discussion

3:00-3:30 Tea break

3:30-5:00 Lab: data assimilation

Tuesday July 22 *Climate prediction*

9:00-10:00 Recurring statistical issues (David Camp)

10:00-10:30 Coffee break

10:30-12:00 Climate prediction issues (Chris Jones)

12:00-3:30 Barbecue

3:30-5:00 Free time

Wednesday July 23

9:00-10:00 Guest lecture

10:00-10:30 Coffee break

10:30-12:00 Discussion

2:00-5:00 Project time for students

Thursday July 24

9:00-10:00 Project reports

10:00-10:30 Coffee break

10:30-12:00 Project reports

12:00-2:00 Lunch

2:00-3:00 Discussion of brainstorming

3:00-3:30 Tea break

3:30-5:00 Breakout groups meet