

ECCO Summer School

May 20-31, 2019

Schedule

Monday, May 20

09:00 - 09:30 AM	Introduction [video]
09:30 - 10:45 AM	State estimation I (Ichiro Fukumori) [pdf] [zoom] [video]
10:45 - 11:00 AM	Morning break
11:00 - 12:15 PM	Observational oceanography I: overview (Meghan Cronin) [pdf] [video]
12:15 - 01:30 PM	Lunch break
01:30 - 02:30 PM	Ocean dynamics & variability (LuAnne Thompson) [pdf] [video]
02:30 - 03:30 PM	Intro. to computational products and tools (Ian Fenty) [pdf] [zoom] [video]
03:30 - 04:00 PM	Evening break
04:00 - 06:00 PM	Hands-on lab session
06:15 - 07:00 PM	Dinner break
07:30 PM	Meet and greet

Tuesday, May 21

08:30 - 09:00 AM	Recap (students) [video]
09:00 - 10:15 AM	Ocean modeling I (Jean-Michel Campin) [pdf] [video]
10:15 - 10:45 AM	Morning break
10:45 - 12:00 PM	State estimation II (Ichiro Fukumori) [pdf] [video]
12:00 - 01:30 PM	Lunch break
01:30 - 02:30 PM	Pacific Ocean circulation (Michael McPhaden) [pdf] [zoom] [video]

02:30 - 03:30 PM Computational tools, Part 2 (Timothy Smith) [[video](#)]
03:30 - 04:00 PM Evening break
04:00 - 06:00 PM Hands-on lab session
06:15 - 07:00 PM Dinner break
07:30 PM Some insights into proposal writing (Eric Lindstrom) [[pdf](#)]

Wednesday, May 22

08:30 - 09:00 AM Recap (students) [[video](#)]
09:00 - 10:15 AM Decadal survey (Eric Lindstrom) [[pdf1](#)] [[pdf2](#)] [[pdf3](#)]
10:45 - 11:00 AM Morning break
11:00 - 12:15 PM Observational oceanography II: in-situ (Meghan Cronin) [[pdf](#)] [[video](#)]
12:15 - 01:30 PM Lunch break
01:30 - 02:45 PM The ends and means of data assimilation (Patrick Heimbach) [[pdf](#)] [[video](#)]
03:00 - 03:45 PM Algorithmic differentiation (AD) (Patrick Heimbach) [[pdf](#)] [[video](#)]
03:45 - 04:30 PM Break & row boat orientation
04:30 - 06:15 PM ECCO reruns (Ou Wang) [[pdf](#)]
06:15 - 07:00 PM Dinner break
07:30 PM Research presentations (students) [[video](#)]

Thursday, May 23

08:30 - 09:00 AM Recap (students) [[video](#)]

09:00 - 10:15 AM Tracer budgets (Christopher Piecuch) [[pdf](#)] [[video](#)]

10:30 - 11:00 AM Morning break

11:00 - 12:15 PM Observational oceanography III: Argo floats (Steve Riser) [[pdf](#)] [[video](#)]

12:00 - 01:30 PM Lunch break

01:30 - 02:30 PM Indian Ocean circulation (Weiqing Han) [[pdf](#)] [[video](#)]

02:30 - 03:30 PM Adjoint sensitivities (I. Fukumori, I Fenty) [[pdf1](#)] [[pdf2](#)]

03:30 - 04:00 PM Evening break

04:00 - 06:00 PM Hands-on lab session

06:15 - 07:00 PM Dinner break

07:30 PM Research presentations (students) [[video](#)]

Friday, May 24

08:30 - 09:15 AM Recap (students) [[video](#)]

09:15 - 10:30 AM Physics of sea level (Rui Ponte) [[pdf](#)] [[video](#)]

10:30 - 11:00 AM Morning break

11:00 - 12:15 PM High resolution modeling I (Amala Mahadevan) [[pdf](#)] [[video](#)]

12:15 - 01:30 PM Lunch break

01:30 - 02:30 PM Atlantic Ocean circulation (Christopher Piecuch) [[pdf](#)] [[video](#)]

02:30 - 03:30 PM Budgets (Christopher Piecuch) [[pdf](#)]

03:30 - 04:00 PM Evening break

04:00 - 06:00 PM Hands-on lab session

06:15 PM Dinner break

Saturday, May 25

08:30 - 09:15 AM Recap (students) [[video](#)]

09:15 - 10:30 AM Ocean modeling II (Jean-Michel Campin / Chris Hill) [[pdf1](#)] [[pdf2](#)] [[video](#)]

10:30 - 11:00 AM Morning break

11:00 - 12:15 PM Observational oceanography IV: satellites (Rui Ponte) [[pdf](#)] [[mp4](#)] [[video](#)]

12:15 - 01:30 PM Lunch break

01:30 - 02:30 PM State estimation III (Ichiro Fukumori) [[pdf](#)] [[video](#)]

02:30 - 03:30 PM Computational lecture (Chris Hill)) [[pdf](#)] [[mp4](#)] [[video](#)]

03:30 - 04:00 PM Evening break

04:00 - 06:00 PM Hands-on lab session

06:15 PM Dinner break

Sunday, May 26

TBD AM Day trip: Options will be announced

05:30 PM Whale Watching Tour

Monday, May 27

08:30 - 09:15 AM Week 2 Intro + Recap (students) [[video](#)]

09:15 - 10:30 AM Sea ice (Martin Losch) [[pdf](#)] [[video](#)]

10:30 - 11:00 AM Morning break

11:00 - 12:15 PM Global salt budgets & water cycle (Julian Schanze) [[pdf](#)] [[video](#)]

12:15 - 01:30 PM Lunch break

01:30 - 02:30 PM Ecology & ECCO Darwin (Chris Hill) [[video](#)]

02:30 - 03:30 PM ECCO access (Ian Fenty) [[pdf](#)] [[video](#)]

03:30 - 04:00 PM Evening break

04:00 - 06:00 PM Hands-on lab session

06:15 PM Dinner break

7:30 PM Intro to Git (Tim Smith) [[pdf](#)]

Tuesday, May 28

08:30 - 09:15 AM Recap (students) [[video](#)]

09:15 - 10:30 AM Coupled modeling & assimilation (Andrea Molod) [[pdf](#)] [[video](#)]

10:30 - 11:00 AM Morning break

11:00 - 12:15 PM Ice-ocean interactions I (Rebecca Jackson) [[pdf](#)] [[video](#)]

12:15 - 01:30 PM Lunch break

01:30 - 02:30 PM Arctic Ocean circulation (An Nguyen) [[pdf](#)] [[video](#)]

02:30 - 03:30 PM ECCO Arctic (An Nguyen) [[pdf](#)] [[video](#)]

03:30 - 04:00 PM Evening break

04:00 - 06:00 PM Hands-on lab session

06:15 - 07:00 PM Dinner break

07:30 PM Diversity, Equity and Inclusion in oceanography (Sonya Legg) [[pdf](#)]

Wednesday, May 29

08:30 - 09:15 AM	Recap (students) [video]
09:15 - 10:30 AM	Model Green's Functions (Dimitris Menemenlis) [pdf] [video]
10:30 - 11:00 AM	Morning break
11:00 - 12:15 PM	Ice-ocean interactions II (Helene Seroussi) [pdf] [video]
12:15 - 01:30 PM	Lunch break
01:30 - 02:45 PM	Regional state estimates (Matthew Mazloff) [pdf] [video]
02:45 - 03:30 PM	Break
03:30 - 04:15 PM	Hands-on adjoint code generation (Team ECCO) [pdf1] [pdf2]
04:15 - 06:00 PM	Hands-on lab session
06:15 PM	Dinner break

Thursday, May 30

08:30 - 09:15 AM	Recap (students) [video]
09:15 - 10:30 AM	Ocean biogeochemistry (Mazloff/Menemenlis) [pdf1] [pdf2] [video]
10:30 - 11:00 AM	Morning break
11:00 - 12:15 PM	Ocean mixing (Sonya Legg) [pdf] [video]
12:15 - 01:30 PM	Lunch break
01:30 - 02:30 PM	Pangeo (Spencer Jones) [video]
02:30 - 03:00 PM	Southern Ocean circulation (Matthew Mazloff) [pdf] [video]

03:00 - 03:30 PM ECCO ice-ocean (Ian Fenty) [[video](#)]
03:30 - 04:00 PM Evening break
04:00 - 06:00 PM Wrap-up: evaluation and discussion
06:15 PM Dinner break

Friday, May 31

07:45 - 09:00 AM Breakfast / checkout / adjourn