

eo summer school 2018

earth system monitoring & modelling

Programme Week 1

	Mon 30-Jul		Tue 31-Jul		Wed 01-Aug		Thu 02-Aug		Fri 03-Aug	
time										
09:00-10:00	D1L1	Welcome, intro to ESA and EOP Diego Fernandez Chris Stewart	D2L1	Remote sensing of sea ice Leif Toudal	D3L1	Satellite Oceanography: an integrated perspective Part 1 Bertrand Chapron	D4L1	Satellite Oceanography : an integrated perspective Part 2 Bertrand Chapron	D5L1	Satellite Oceanography: Observing ocean waves from Space Bertrand Chapron
10:00-11:00	D1L2	The Earth System; past and present Anny Cazenave	D2L2	Monitoring the water cycle over land: rainfall and surface energy balance Zoltan Vekerdy	D3L2	Ocean Circulation I: Introduction Marie-Hélène Rio	D4L2	How to measure 3 trillion tons of ice Andrew Shepherd	D5L2	Ocean Circulation III: The 3D perspective Marie-Hélène Rio
11:00-11:30		Coffee		Coffee		Coffee		Coffee		Coffee
11:30-12:30	D1L3	Sea level rise from space Anny Cazenave	D2L3	Monitoring the water cycle over land: water bodies and soil moisture Zoltan Vekerdy	D3L3	Ocean colour theory Bob Brewin	D4L3	Ocean Circulation II: Space and in-situ data synergy Marie-Hélène Rio	D5L3	Ocean colour and climate Bob Brewin
12:30-13:30	D1L4	Environmental Science and Sustainable Development Martin Visbeck	D2L4	Visit to Phi-Experience	D3L4	Remote sensing and modelling of sea ice Leif Toudal	D4L4	Ocean colour and the marine carbon cycle Bob Brewin	D5L4	Is Earth's sea ice declining? Andrew Shepherd
13:30-14:30		Lunch		Lunch		Lunch		Lunch		Lunch
14:30-15:30	D1P1	Opportunities for Integrated Ocean Observing Martin Visbeck	D2P1	Toolboxes (SNAP) Chris Stewart Luca Demarchi Georgia Doxani Magdalena Fitzyk	D3P1	Ocean Virtual Lab (OVL) Fabrice Collard Lucile Gaultier Guillaume Le Seach	D4P1	Ocean Virtual Lab (OVL) Fabrice Collard Lucile Gaultier Guillaume Le Seach	D5P1	Ocean Virtual Lab (OVL) Fabrice Collard Lucile Gaultier Guillaume Le Seach
15:30-16:30	D1P2	Toolboxes (SNAP) Chris Stewart Luca Demarchi Magdalena Fitzyk	D2P2		D3P2		D4P2		D5P2	
16:30-17:00		Coffee		Coffee		Coffee		Coffee		Coffee
17:00-18:00	D1P3	Toolboxes (SNAP) Chris Stewart Luca Demarchi Magdalena Fitzyk	D2P3	Toolboxes (SNAP) Chris Stewart Luca Demarchi Georgia Doxani Magdalena Fitzyk	D3P3	Ocean Virtual Lab (OVL) Fabrice Collard Lucile Gaultier Guillaume Le Seach	D4P3	Ocean Virtual Lab (OVL) Fabrice Collard Lucile Gaultier Guillaume Le Seach	D5P3	Ocean Virtual Lab (OVL) Fabrice Collard Lucile Gaultier Guillaume Le Seach
		Cocktail Reception (18:00 - 19:30)					Hosted Dinner (18:00 - 20:30)			

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Programme Week 2

	Mon 06-Aug		Tue 07-Aug		Wed 08-Aug		Thu 09-Aug		Fri 10-Aug	
time										
09:00-10:00	D6L1	The role of the global carbon cycle in the Earth System Shaun Quegan	D7L1	Monitoring and Modelling of Land Surface Processes Jochem Verrelst	D8L1	Combining models and data to quantify the terrestrial carbon cycle Shaun Quegan	D9L1	Satellite gradiometry for geophysical research Jorg Ebbing	D10L1	Linking Solid Earth and cryosphere in Antarctica Jorg Ebbing
10:00-11:00	D6L2	Monitoring and Modelling of Land Surface Processes Jochem Verrelst	D7L2	Observing the terrestrial carbon cycle Shaun Quegan	D8L2	Monitoring and Modelling of Land Surface Processes Jochem Verrelst	D9L2	Effects of Magnetosphere-Ionosphere Coupling in the Polar Ionosphere Giuseppe Consolini	D10L2	Complexity and Turbulence in the Polar Ionosphere Giuseppe Consolini
11:00-11:30		Coffee		Coffee		Coffee		Coffee		Coffee
11:30-12:30	D6L3	Atmospheric carbon dioxide: watching the earth breathe Julia Marshall	D7L3	Atmospheric methane: untangling an enigma Julia Marshall	D8L3	Atmospheric inversions: tracking down the sources and sinks Julia Marshall	D9L3	Joint inversion of satellite and other geophysical data Jorg Ebbing	D10P1	Innovation in Earth Observation Iarla Kilbane-Dawe
12:30-13:30	D6L4	Introduction to Physical Principles for Earth System Data Lab (ESDL) Practicals Miguel Mahecha	D7L4	Data Assimilation (DA): An introduction to data assimilation Amos Lawless	D8L4	Data Assimilation (DA): Variational data assimilation and the ensemble Kalman filter Amos Lawless	D9L4	Data Assimilation (DA): Applications of data assimilation and current challenges Amos Lawless	D10P2	Closure of course
13:30-14:30		Lunch		Lunch		Lunch		Lunch		Lunch
14:30-15:30	D6P2	Earth System Data Lab (ESDL) Hans Permana Miguel Mahecha	D7P1	Earth System Data Lab (ESDL) Hans Permana Miguel Mahecha	D8P1	DA Practical Amos Lawless Ewan Pinnington Natalie Douglas Javier Amezcua Zackary Bell	D9P1	DA Practical Amos Lawless Ewan Pinnington Natalie Douglas Javier Amezcua Zackary Bell		
15:30-16:30	D6P3		D7P2		D8P2		D9P2			
16:30-17:00		Coffee		Coffee		Coffee		Coffee		
17:00-18:00	D6P4	Earth System Data Lab (ESDL) Hans Permana Miguel Mahecha	D7P3	Earth System Data Lab (ESDL) Hans Permana Miguel Mahecha	D8P3	DA Practical Amos Lawless Ewan Pinnington Natalie Douglas Javier Amezcua Zackary Bell	D9P3	DA Practical Amos Lawless Ewan Pinnington Natalie Douglas Javier Amezcua Zackary Bell		

Colour Code
Lecture
Practical Session
Social Event
Lunch / Coffee Break
Other