

## EO Summer School 2018 - 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 <b>Diego Fernandez</b> <b>Chris Stewart</b>	D2L1	Remote sensing of sea ice <b>Leif Toudal</b>	D3L1	Satellite Oceanography: an integrated perspective Part 1 <b>Bertrand Chapron</b>	D4L1	Satellite Oceanography : an integrated perspective Part 2 <b>Bertrand Chapron</b>	D5L1	Satellite Oceanography: Observing ocean waves from Space <b>Bertrand Chapron</b>
10:00-11:00	D1L2	The Earth System; past and present <b>Anny Cazenave</b>	D2L2	Monitoring the water cycle over land: rainfall and surface energy balance <b>Zoltan Veckerdy</b>	D3L2	Ocean Circulation I: Introduction <b>Marie-Hélène Rio</b>	D4L2	How to measure 3 trillion tons of ice <b>Andrew Shepherd</b>	D5L2	Ocean Circulation III: The 3D perspective <b>Marie-Hélène Rio</b>
11:00-11:30		Coffee		Coffee		Coffee		Coffee		Coffee
11:30-12:30	D1L3	Sea level rise from space <b>Anny Cazenave</b>	D2L3	Monitoring the water cycle over land: water bodies and soil moisture <b>Zoltan Veckerdy</b>	D3L3	Ocean colour theory <b>Bob Brewin</b>	D4L3	Ocean Circulation II: Space and in-situ data synergy <b>Marie-Hélène Rio</b>	D5L3	Ocean colour and climate <b>Bob Brewin</b>
12:30-13:30	D1L4	Environmental Science and Sustainable Development <b>Martin Visbeck</b>	D2L4	Visit to Phi-Experience	D3L4	Remote sensing and modelling of sea ice <b>Leif Toudal</b>	D4L4	Ocean colour and the marine carbon cycle <b>Bob Brewin</b>	D5L4	Is Earth's sea ice declining? <b>Andrew Shepherd</b>
13:30-14:30		Lunch		Lunch		Lunch		Lunch		Lunch
14:30-15:30	D1P1	Opportunities for Integrated Ocean Observing <b>Martin Visbeck</b>	D2P1	Toolboxes (SNAP) <b>Chris Stewart</b> <b>Luca Demarchi</b> <b>Fabrizio Ramoino</b> <b>Magdalena Fitzyk</b>	D3P1	Ocean Virtual Lab (OVL) <b>Fabrice Collard</b> <b>Lucille Gaultier</b> <b>Guillaume Le Seach</b>	D4P1	Ocean Virtual Lab (OVL) <b>Fabrice Collard</b> <b>Lucille Gaultier</b> <b>Guillaume Le Seach</b>	D5P1	Ocean Virtual Lab (OVL) <b>Fabrice Collard</b> <b>Lucille Gaultier</b> <b>Guillaume Le Seach</b>
15:30-16:30	D1P2	Toolboxes (SNAP) <b>Chris Stewart</b> <b>Luca Demarchi</b> <b>Fabrizio Ramoino</b> <b>Magdalena Fitzyk</b>	D3P2		D4P2		D5P2			
16:30-17:00		Coffee		Coffee		Coffee		Coffee		Coffee
17:00-18:00	D1P3	Toolboxes (SNAP) <b>Chris Stewart</b> <b>Luca Demarchi</b> <b>Fabrizio Ramoino</b> <b>Magdalena Fitzyk</b>	D2P3	Toolboxes (SNAP) <b>Chris Stewart</b> <b>Luca Demarchi</b> <b>Fabrizio Ramoino</b> <b>Magdalena Fitzyk</b>	D3P3	Ocean Virtual Lab (OVL) <b>Fabrice Collard</b> <b>Lucille Gaultier</b> <b>Guillaume Le Seach</b>	D4P3	Ocean Virtual Lab (OVL) <b>Fabrice Collard</b> <b>Lucille Gaultier</b> <b>Guillaume Le Seach</b>	D5P3	Ocean Virtual Lab (OVL) <b>Fabrice Collard</b> <b>Lucille Gaultier</b> <b>Guillaume Le Seach</b>
		Cocktail Reception (18:00 - 19:30)						Hosted Dinner (18:00 - 20:30)		

## EO Summer School 2018 - 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 <b>Shaun Quegan</b>	D7L1	Monitoring and Modelling of Land Surface Processes <b>Jochem Verrelst</b>	D8L1	Combining models and data to quantify the terrestrial carbon cycle <b>Shaun Quegan</b>	D9L1	Satellite gradiometry for geophysical research <b>Jorg Ebbing</b>	D10L1	Linking Solid Earth and cryosphere in Antarctica <b>Jorg Ebbing</b>
10:00-11:00	D6L2	Monitoring and Modelling of Land Surface Processes <b>Jochem Verrelst</b>	D7L2	Observing the terrestrial carbon cycle <b>Shaun Quegan</b>	D8L2	Monitoring and Modelling of Land Surface Processes <b>Jochem Verrelst</b>	D9L2	Effects of Magnetosphere-Ionosphere Coupling in the Polar Ionosphere <b>Giuseppe Consolini</b>	D10L2	Complexity and Turbulence in the Polar Ionosphere <b>Giuseppe Consolini</b>
11:00-11:30		Coffee		Coffee		Coffee		Coffee		Coffee
11:30-12:30	D6L3	Atmospheric carbon dioxide: watching the earth breathe <b>Julia Marshall</b>	D7L3	Atmospheric methane: untangling an enigma <b>Julia Marshall</b>	D8L3	Atmospheric inversions: tracking down the sources and sinks <b>Julia Marshall</b>	D9L3	Joint inversion of satellite and other geophysical data <b>Jorg Ebbing</b>	D10P1	Innovation in Earth Observation <b>Iarla Kilbane-Dawe</b>
12:30-13:30	D6L4	Introduction to Physical Principles for Earth System Data Lab (ESDL) Practicals <b>Miguel Mahecha</b>	D7L4	Data Assimilation (DA): An introduction to data assimilation <b>Amos Lawless</b>	D8L4	Data Assimilation (DA): Variational data assimilation and the ensemble Kalman filter <b>Amos Lawless</b>	D9L4	Data Assimilation (DA): Applications of data assimilation and current challenges <b>Amos Lawless</b>	D10P2	<b>Closure of course</b>
13:30-14:30		Lunch		Lunch		Lunch		Lunch		Lunch
14:30-15:30	D6P2	Earth System Data Lab (ESDL) <b>Hans Permana</b> <b>Miguel Mahecha</b>	D7P1	Earth System Data Lab (ESDL) <b>Hans Permana</b> <b>Miguel Mahecha</b>	D8P1	DA Practical <b>Amos Lawless</b> <b>Ewan Pinnington</b> <b>Natalie Douglas</b> <b>Javier Amezcua</b> <b>Zackary Bell</b>	D9P1	DA Practical <b>Amos Lawless</b> <b>Ewan Pinnington</b> <b>Natalie Douglas</b> <b>Javier Amezcua</b> <b>Zackary Bell</b>		
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) <b>Hans Permana</b> <b>Miguel Mahecha</b>	D7P3	Earth System Data Lab (ESDL) <b>Hans Permana</b> <b>Miguel Mahecha</b>	D8P3	DA Practical <b>Amos Lawless</b> <b>Ewan Pinnington</b> <b>Natalie Douglas</b> <b>Javier Amezcua</b> <b>Zackary Bell</b>	D9P3	DA Practical <b>Amos Lawless</b> <b>Ewan Pinnington</b> <b>Natalie Douglas</b> <b>Javier Amezcua</b> <b>Zackary Bell</b>		

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