

“Natural and man-made hazards monitoring by the Earth Observation missions: current status and scientific gaps”

Conveners: Anny Cazenave (ISSI), Mioara Mandea (CNES), Jerome Benveniste (ESA), Stephen Belcher (MetOffice), Teodolina Lopez (ISSI)

ISSI Workshop Program, 15-18 April 2019

Monday, 15 April 2019		
Time	Topic	Speaker
12:30-13:30	Registration in ISSI, Hallerstrasse 6, 1 st floor	
13:30-13:45	Welcome and introducing ISSI	Teodolina Lopez (ISSI)
13:45-14:00	Objectives of the workshop	Anny Cazenave (ISSI)
Session 1: Introductory session		Chairperson: Mioara Mandea
14:00-14:45	Natural hazards; Solid Earth: a review	Eric Calais (ENS, France)
14:45-15:30	Natural hazards; atmosphere & hydrosphere: a review	Stephen Belcher (MetOffice, UK)
15:30-16:00	From hazard to risk	Simone Russo (European Commission, Belgium)
16:00-16:30	<i>Coffee Break</i>	
16:30-17:00	How remote sensing can help? The operational Sentinel missions	Jérôme Benveniste (ESRIN/ESA, Italy)
17:00-17:30	Combining remote sensing and unmanned aerial vehicles	Candide Lissak (Univ. Caen, France)
17:30-18:00	Discussion	All participants
18:00	<i>Welcome Reception</i>	

“Natural and man-made hazards monitoring by the Earth Observation missions: current status and scientific gaps”

ISSI Workshop Programme, 15-18 April 2019

Tuesday, 16 April 2019		
Time	Topic	Speaker
Session 2: Solid Earth hazards and mechanisms		Chairperson: Harsh Gupta
9:00 - 9:30	Crustal deformations determined from space-based observations (InSAR, optical imagery, GNSS)	John Elliot (Univ. Leeds, UK)
9:30-10:00	Pre-seismic thermal anomalies detected from space	Teodolina Lopez (ISSI)
10:00 - 10:30	Seismic risk induced by man-made reservoirs	Harsh Gupta (NGRI, India)*
10:30 - 11:00	<i>Coffee Break</i>	
11:00 - 11:30	Remote sensing of land slides	Marcello de Michele (BRGM, France)
11:30 - 12:00	Input of space observations to mitigate volcanic risk	Matthieu Kervyn (Vrije Univ., Belgium)
12:00 – 12:30	General discussion	All participants
12:30 - 14:00	<i>Lunch Break</i>	
Session 2: Solid Earth hazards and mechanisms, continued		Chairperson: Angélique Melet
14:00 - 14:30	Subsidence at coastal megacities and large deltas (natural and anthropogenic)	Pietro Teatini (Univ. Padova, Italy)
14:30 - 15:00	Tsunamis: role of space observations to improve tsunami modelling	Hélène Hebert (CEA, France)
15:00 - 16:00	General discussion	All participants
16:00 - 16:30	<i>Coffee Break</i>	
16:30 - 17:15	<i>Lecture: Paleo records of abrupt changes in the Earth system</i>	Marie France Loutre (Univ. Bern, Switzerland)

“Natural and man-made hazards monitoring by the Earth Observation missions: current status and scientific gaps”

ISSI Workshop Programme, 15-18 April 2019

Wednesday, 17 April 2019		
Time	Topic	Speaker
Session 3: Hydrological changes		Chairperson: Jérôme Benveniste
9:00 - 9:30	Surface water quality, pollutions and remote sensing	Cédric Jamet (Univ. Littoral-Côte d'Opale, France)
9:30 - 10:00	Decline of groundwater resources from space gravimetry	Laurent Longuevergne (Univ. Rennes, France)
10:00 - 10:30	Near-real time GRACE-based flood warning	Adrian Jäggi (Univ. Bern, Switzerland)
10:30 - 11:00	<i>Coffee break</i>	
Session 4: Natural and man-made forcing on land and at the land-sea interface		Chairperson: Adrian Jäggi
11:00 - 11:30	Impact of climate and land use change on water balance, agriculture and food security	Ian Jarvis (GEOGLAM, Switzerland)
11:30 - 12:00	Operational monitoring of the coastal ocean & security	Angélique Melet (Mercator-Ocean, France)
12:00 - 12:30	Monitoring geohazards and risks from space	G. Le Cozannet (BRGM, France)
12:30 - 14:00	<i>Lunch Break</i>	
Session 5: Extreme events		Chairperson: Anny Cazenave
14:00 - 14:30	Storm surges; role of space	Jérôme Benveniste (ESRIN/ESA, Italy)
14:30 - 15:00	Thunderstorms nowcasting	Olivia Romppamen-Martius (Univ. Bern, Switzerland)
15:00 - 15:30	Fire hazards from space	Maria Lucrecia Pettinari (Univ. Alcala, Spain)
15:30 - 16:00	General discussion	All participants
16:00 - 16:30	<i>Coffee Break</i>	
16:30 - 17:15	<i>Lecture: Space weather hazards</i>	Mioara Manda (CNES, France)
19:00	<i>Dinner hosted by ISSI</i>	

“Natural and man-made hazards monitoring by the Earth Observation missions: current status and scientific gaps”

ISSI Workshop Programme, 15-18 April 2019

Thursday, 18 April 2019		
Time	Topic	Speaker
Session 6: Tipping points		Chairperson: Teodolina Lopez
09:00 - 9:30	High- resolution space observations of dynamical instabilities in Antarctica	Isabella Velicogna (Univ. Irvine, USA)
9:30 - 10:00	What space can tell us on permafrost thawing and greenhouse gas release in polar regions?	Annett Bartsch (B.GEOS & APRI, Austria)
10:00 - 10:30	Potential for abrupt changes in the Atlantic Ocean circulation: insights from climate models, space and in situ observations	Didier Swingedouw (Univ. Bordeaux, France)
10:30 - 11:00	<i>Coffee Break</i>	
11:00 - 11:30	Abrupt changes in marine ecosystems	Alessandra Conversi (ISMAR, Italy)
11:30 - 12:00	Impact of tipping points on human societies	Chinwe Ifejika Speranza (Uni. Bern, Switzerland)
12:00 – 12:30	General discussion	All participants
12:30 - 14:00	<i>Lunch Break</i>	
Session 7: Pollutions		Chairperson: Goneri Le Cozannet
14:00 - 14:30	Space observations for monitoring air quality	Cathy Clerbaux (LATMOS, France)
14:30 - 15:00	Pollution of sea waters (plastic & hydrocarbon pollutions...); role of space	Christophe Maes (LPO, France)
Session 8: Synthesis; gaps and uncertainties; recommendations and publications		
15:00 - 16:00	General discussion	All participants
16:00 - 16:30	<i>Coffee Break</i>	
16:30 - 18:30	Preparation of the special issue (article topics and authorship)	All participants

End of meeting