

ARISE 2 workshop  
2 > 6 october 2017



# G R I F

REUNION ISLAND  
GEOPHYSICAL RESEARCH  
INFRASTRUCTURES  
F O R U M

- Program -





## MONDAY 2 OCTOBER

### > ARISE2 Workshop

HOURS	LOCATION	ACTIVITIES	PARTICIPANTS	
08:30 - 08:45	University of Reunion Island  Administration Building Boardroom	(Participants giving a poster presentation are invited to set up their posters)		
8:45 - 9:00		Welcome to ARISE2 workshop		
9:00 - 12:00		<b>ARISE-2 workshop Scientific session 1 (oral presentations)</b>	<b>Elisabeth Blanc (CEA- Coordination)</b>	
09:00 - 09:20		Determining gravity wave parameters from ARISE measurements and further applications	Graeme Marlton (U-Reading)	
09:20 - 09:40		Assessment of ensemble weather forecast from the 2013 SSW case study	Pieter Smets (KNMI)	
09:40 - 10:00		Co-located measurements with CORAL and IS26 in 2016	Patrick Hupe (BGR)	
10:00 - 10:20		Towards automatic lidar data processing	Guillaume Payen (UR)	
10:20 - 10:50		<b>Coffee break</b>		
10:50 - 11:10		The development of a ground-based instrument to detect modulations in airglow layers at infrasonic frequencies	Franck Mulligan (NUIM)	
11:10 - 11:30		Six months of nightglow measurements at La Reunion Island	Pierre Simoneau (Onera)	
11:30 - 11:50		Prospects and limitations of modern lidar systems for stratosphere and mesosphere research	Bernd Kaifler (GAC)	
11:50 - 12:10		Small scale fluctuations in lidar observations of a noctilucent cloud	Nathalie Kaifler (GAC)	
12:10 - 14:00		<b>Lunch break</b>		
14:00 - 15:20		<b>ARISE-2 workshop Scientific session 2 (oral presentations)</b>	<b>Elisabeth Blanc (CEA- Coordination)</b>	
14:00 - 14:20		Progress in ionospheric Doppler sounding as a new ARISE technique	Jan Lastovicka (IAP CAS)	
14:20 - 14:40		Meteor Radar Observations as derived from the new MMARIA network	Gunter Stober (LIAP)	
14:40 - 15:00		The multi-instrument determination of vertical wind and temperature profiles from 5 to 105 km at ALOMAR	Gerd Baumgarten (LIAP)	
15:00 - 15:20		Using smartphones to monitor atmospheric tides	Colin Price (TAU)	
15:20 - 15:50		ARISE-2 workshop Scientific session 3 (posters)	Patrick Hupe (BGR), Daniela Veronica Ghica (NIEP), Akexandr Smirnov (IGR), Jonas Hagen (U-Bern), Csenge Czanik (HAS), Nicolau Wallenstein (IVAR), Kristin Jonsdottir (IMO), Christophe Millet (CEA) and Sandro Matos (IVAR)	
15:50 - 16:10		ARISE-2 Management session	Jennifer Shaw-Taberlet (WAVESTONE- Coordination)	
16:10 - 17:10	ARISE-2 WP7 Session	Katy Pol (CEA) - Laurent Frobert (EMSC)		
17:10 - 18:00	ARISE-2 Steering Committee	Elisabeth Blanc (CEA- Coordination)		

## TUESDAY 3 OCTOBER > Scientific conferences in english

HOURS	LOCATION	ACTIVITIES	PARTICIPANTS	
8:00 - 8:30	University of Reunion Island  Bioclimatic amphitheater	Welcome to GRIF-RUN		
8:30 - 8:45		Opening Forum	Georges Dalleau, University vice-chancellor NEXA Jean-Pierre Cammas (OSU-R)	
8:45 - 9:45		Climate and climate change over the South-West Indian Ocean	Guy Brasseur (MP-IM)	
9:45 - 10:20		The dynamic Arctic winter stratosphere – its impacts on continental weather patterns and observing it using multiple technologies	Sven Peter Näsholm (NORSAR)	
10:20 - 10:45		<b>Coffee break</b>		
10:45 - 11:20		ARISE2: Atmospheric dynamics Research InfraStructure	Elisabeth Blanc (CEA)	
11:20 - 11:55		ACTRIS: Aerosols, Clouds and Trace gases Research Infrastructure	Paolo Laj (CNRS)	
11:55 - 12:30		Fifth anniversary of Maïdo atmospheric observatory activities	J.-P. Cammas (OSU-R), V. Duflot, H. Vèrèmes, S. Evan, N. Bégue, P. Tulet, T. Portafaix, F. Posny (LACy), G. Payen (OSU-R), J.-M. Metzger & N. Marquestaut (LACy & OSU-R)	
12:30 - 13:45		<b>Lunch break</b>		
13:45 - 14:15		Atmospheric dynamics and gravity waves	A. Hauchecorne, S. Khaykin (LATMOS), N. Kampfer (Univ. Bern), N. Marquestaut and G. Payen (OSU-R)	
14:15 - 14:45		Coupled atmosphere and ocean modelling: state of the art for the Indian Ocean	C. Barthe, S. Bielli, J. Pianezze and E. Cordier (LACy, OSU-R)	
14:45 - 15:15		Acoustic remote sensing: monitoring applications for hurricanes, severe sea states, and volcanoes	A. Le Pichon (CEA), G. Barruol (IPGP), M. Ripepe (Univ. Firenze), and N. Villeneuve (OVPF/IPGP)	
15:15 - 15:45		STRAP: Trans-disciplinary collaboration to investigate volcano plumes hazards	Andréa Di Muro (OVPF/IPGP) P. Tulet (LACy)	
15:45 - 16:00		<b>Coffee break</b>		
16:00 - 16:30		ReNovRisk: Integrated project on natural risks associated with tropical cyclones	P. Tulet (LACy), S. Bes de Berc (BRGM), O. Bousquet (LACy), G. Barruol (IPGP), JP Cammas (OSU-R), R. Bélon (BRGM) and S. Garabedian (CEMOI)	
16:30 - 17:30		Copernicus Services (Atmosphere, Marine, Land, Climate, Emergency) and new comprehensive atmospheric reanalysis ERA5 (Copernicus Climate Change Service operated by ECMWF)	V.H. Peuch (Head of COPERNICUS Atmospheric Monitoring Services) and A. Simmons (ECMWF)	
18:00 - 20:00		Public conference about geophysical infrastructures	G. Brasseur (MP-IM), V.H. Peuch (Head of COPERNICUS Atmospheric Monitoring Services), A. Simmons (ECMWF), J.-P. Cammas (OSU-R), V. Duflot (LACy), H. Vèrèmes (LACy), S. Evan (LACy), N. Bégue (LACy), P. Tulet (LACy), T. Portafaix (LACy), F. Posny, G. Payen (OSU-R), J.-M. Metzger & N. Marquestaut (LACy & OSU-R)	
<b>ARISE-2 Splinter Meeting</b>				
18:00 - 20:00	University of Reunion Island OSU-R meeting room	ARISE2 breakout working session (On the exploitation of colocated infrasound and lidar measurements)	LATMOS, BGR, DLR, CEA, KBORN, ALOMAR, UR (+ anyone interested)	



## WEDNESDAY 4 OCTOBER

### > H2020 forum & Training School (1/3): University

HOURS	LOCATION	ACTIVITIES	PARTICIPANTS
08:45	University of Reunion Island  Administration Building Boardroom	Welcome to participants	
09:00		- Presentations of other research Units - Presentation of local opportunities: Cellule Europe Services, ERDF Fundings	F. Mazella (NEXA) & J. M. Mora Rey (UR)
09:15		Identification of calls for tender on H2020 2018-2020 : Support of collaborations	F. Mazella (NEXA), J. M. Mora Rey (UR) & J. Shaw-Taberlet (Wavestone-Coordination)
10:30		OSU-R strategies	Jean-Pierre Cammas (OSU-R)
10:45		ARISE strategy	Elisabeth Blanc (CEA)
11:45		Conclusions	Jennifer Shaw-Taberlet (WAVESTONE - Coordination)
<b>Lunch break</b>			
14:00 - 17:00	University of Reunion Island	Welcome to training school on applications for infrasounds observations	Alexis Le Pichon (CEA) , Katy Pol (CEA), Pieter Smets (KNMI), Maurizio Ripepe (Univ. Firenze), Alexandr Smirnov (Novosibirsk Univ.), Pierrick Mialle (CBTO) and collaborators
	Building S4C, room 1-INF1	Measurement theory related to infrasound sources & propagation	
		Remote survey of geophysical events with infrasound monitoring: volcanic eruptions, ocean swell associated with tropical cyclones and mid-latitude storms, lightning associated with deep tropical convection	
<b>ARISE-2 Splinter Meeting</b>			
14:00 – 16:00	University of Reunion Island  Administration Building Boardroom	ARISE2 breakout working session : On the links between atmosphere, ionosphere and space (Ionospheric HF sounder, Radars, Lidars, EISCAT...)	CEA, IAP Prague, LATMOS, CEA, IRF, ALOMAR (+ anyone interested)



## THURSDAY 5 OCTOBER

> Maïdo Observatory visit & Training school (2/3): Maïdo observatory meeting room

HOURS	LOCATION	ACTIVITIES	PARTICIPANTS
09:00 - 09:15	University of Reunion Island	Welcome to visitors and introduction to the infrastructure	Valentin Duflot (LACy), Jean-Pierre Cammas, Jean-Marc Metzger (OSU-R) and collaborators
09:15 - 12:15		Group visit (per group of 10 people) of the observatory	
12:15 - 13:45		<b>Lunch break</b>	
13:45 - 14:00	U-RUN Administration Building Boardroom	Welcome to training school on active remote sensing by lidars	Gerd Baumgarten (IAP Leibniz), Alain Hauchecorne (LATMOS), Valentin Duflot, Thierry Portafaix (LACy), Nicolas Marquestaut, Guillaume Payen (OSU-R)
14:00 - 15:45		Measurement theory related to lidars	
15:45 - 16:00			
16:00 - 17:45		Lidars geophysical applications: atmosphere (physics and chemical composition), biosphere (forest carbon stock, canopy study), digital terrain model (hydrology, monitoring coastline),...	Gerd Baumgarten (IAP Leibniz), Alain Hauchecorne (LATMOS), Valentin Duflot, Thierry Portafaix (LACy), Nicolas Marquestaut, Guillaume Payen (OSU-R)
17:45 - 18:00			
18:00 - 19:00		Night-time starting operations for lidar observations	Eric Golubic, Louis Mottet and Patrick Hernandez (OSU-R)
<b>ARISE-2 Splinter Meeting</b>			
15:00 - 18:00	Saint-Pierre Hotel	ARISE2 breakout working session (Development and implementation of VIEWS and VPS volcano related products)	UNIFI, CEA, CTBT, CSEM (+ anyone interested)

## FRIDAY 6 OCTOBER

> Volcano Observatory visit & ARISE Perspectives Meeting Cité du Volcan

HOURS	LOCATION	ACTIVITIES	PARTICIPANTS
09:00 - 09:15	Volcanologic observatory - Piton de la Fournaise	Welcome to visitors and introduction to the infrastructure	Aline Peltier, Andrea Di Muro & Nicolas Villeneuve (OVPF/IPGP)
09:15 - 12:15		Group visit (per group of 10 people) of the observatory	
12:15 - 13:45	<b>Lunch break</b>		
14:00 - 16:00	«Cité du Volcan» amphitheater	ARISE Perspectives	ARISE Community