




### 3<sup>rd</sup> International Training School on

# “Convective and volcanic clouds detection, monitoring and modeling”

Tarquinia, Italy, 18 –25 October, 2017

<p><b>Keynote lecturers</b></p> <p><i><b>Roy Gordon Grainger</b></i> (Univ. of Oxford, UK)  <i><b>Fred Prata</b></i> (Nicarnica Aviation, Norway)  <i><b>Dorinel Visoiu</b></i> (Romanian Air Traffic Services Administration)</p>	<p><b>Lecturers</b></p> <p><i>Riccardo Biondi</i> (ISAC-CNR, Italy)  <i>Tatjana Bolic</i> (Univ. of Trieste, Italy)  <i>Elisa Carboni</i> (Univ. of Oxford, UK)  <i>Stefano Corradini</i> (INGV, Italy)  <i>Claire Witham</i> (MetOffice, UK)  <i>Lorenzo Labrador</i> (MetOffice, UK)  <i>Marcello Miglietta</i> (ISAC-CNR, Italy)  <i>Mario Montopoli</i> (ISAC-CNR, Italy)  <i>Matteo Picchiani</i> (Tor Vergata University, GEO-K srl)  <i>Simona Scollo</i> (INGV, Italy)  <i>Mark Woodhouse</i> (Univ. of Bristol, UK)</p>
<p><b>Organizing committee</b></p> <p>Riccardo Biondi (ISAC-CNR, Italy)  Tatjana Bolic (Univ. of Trieste, Italy)  Elisa Carboni (Univ. of Oxford, UK)  Stefano Corradini (INGV, Italy)  Nina Iren Kristiansen (NILU, Norway)  Lorenzo Labrador (MetOffice, UK)  Marcello Miglietta (ISAC-CNR, Italy)  Mario Montopoli (ISAC-CNR, Italy)  Giuseppe Salerno (INGV, Italy)  Rita Nogherotto (ICTP, UNESCO)</p>	<p><b>Local Organization</b></p> <p>Island Of Meetings by ER srls  Phone: +39 3931302769  Email: <a href="mailto:info@islandofmeetings.com">info@islandofmeetings.com</a>  <a href="http://www.islandofmeetings.com">www.islandofmeetings.com</a></p> 



## Program

	Wednesday 18	Thursday 19	Friday 20	Saturday 21	Sunday 22
Early morning		jogging		jogging	
8.50-9.40	F. Prata (1)	F. Prata (4)	C. Witham (9)	Excursion (+)	Students present. (°°)
09.50-10.40	F. Prata (1)	F. Prata (4)	C. Witham (9)	Excursion (+)	Students present. (°°)
	Coffee break	Coffee break	Coffee break		Coffee break
11.00-11.50	G. Grainger (2)	G. Grainger (5)	M. Woodhouse (10)	Excursion (+)	Poster session
12.00-12.50	G. Grainger (2)	G. Graninger (5)	M. Woodhouse (10)	Excursion (+)	Poster session
lunch	Namo	Ambaradam	Erba	Le due Orfanelle	Butto
14.30-15.20	S. Corradini (3)	M. Picchiani (7)	Woodhouse (11)	M. Montopoli (12)	D. Visoiu (14)
15.30-16.20	S. Corradini (3)	M. Picchiani (7)	Students present. (°)	M. Montopoli (12)	D. Visoiu (14)
	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
16.40-17.30	E. Carboni (6)	S. Scollo (8)	Poster Session	T. Bolic (13)	M. Montopoli (15)
17.40-18.30	E. Carboni (6)	S. Scollo (8)	Poster session	T. Bolic (13)	M. Montopoli (15)
Dinner	Le due Orfanelle	Butto	Namo	Ambaradam	Erba

	Monday 23	Tuesday 24	Wednesday 25
Early morning		jogging	
8.50-9.40	D. Visoiu (16)	L. Labrador (20)	L. Labrador (22)
09.50-10.40	D. Visoiu (16)	L. Labrador (20)	L. Labrador (22)
	Coffee break	Coffee break	Coffee break
11.00-11.50	M. Miglietta (17)	M. Miglietta (21)	R. Biondi (23)
12.00-12.50	M. Miglietta (17)	M. Miglietta (21)	R. Biondi (23)
lunch	Le due Orfanelle	Ambaradam	Vote your favorite!
14.30-15.20	R. Biondi (18)	Excursion (++)	
15.30-16.20	R. Biondi (18)	Excursion (++)	
	Coffee break		
16.40-17.30	M. Miglietta (19)	Excursion (++)	
17.40-18.30	M. Miglietta (19)	Excursion (++)	
Dinner	Farina e Tempesta	Namo	



Free time	Student's time	Labs
Keynotes	Lectures	Meals

**VOLCANIC MODULE: from Wednesday 18 at 8:50 to Saturday 21 at 18:30 – Lectures 1-13**

**CONVECTIVE MODULE: from Saturday at 16:40 to Wednesday 25 at 14:30 (lunch included) – Lectures 13-23**

- (1) Hazardous volcanic clouds: challenges, techniques and future (*F. Prata*)
- (2) Light and ash (*G. Grainger*)
- (3) Volcanic clouds detection and retrievals by using multispectral satellite data (*S. Corradini*)
- (4) Volcanic clouds from and hyper-spectral satellite instruments (*F. Prata*)
- (5) Light and ash (*G. Grainger*)
- (6) Retrieval theory and applications with satellite spectrometers (*E. Carboni*)
- (7) Satellite volcanic clouds Lab (*M. Picchiani*)
- (8) Volcanic degassing and ash emission (*S. Scollo*)
- (9) Volcanic clouds transport and inverse modeling (*C. Witham*)
- (10) Volcanic plumes modeling (*M. Woodhouse*)
- (11) Volcanic clouds modeling Lab (*M. Woodhouse and C. Witham*)
- (12) Volcanic cloud detection and monitoring from ground based radars (*M. Montopoli*)
- (13) ATM and Airlines' Operations in volcanic ash and convective weather (*T. Bolic*)
- (14) Provision of early warnings on severe convection for aviation – current practices and future challenges (*D. Visoiu*)
- (15) Convection detection and monitoring from ground based radars (*M. Montopoli*)
- (16) The use of the equivalent isothermal layer method in convection forecasting (*D. Visoiu*)
- (17) Convection and Stability - Thermodynamic Diagrams (*M. Miglietta*)
- (18) The use of GNSS Radio Occultations for sounding the atmosphere and extreme atmospheric events (*R. Biondi*)
- (19) Orographic Convection (*M. Miglietta*)
- (20) Overshooting and deep convection (*L. Labrador*)
- (21) Practical Experiences and Examples of deep convection: Mediterranean cyclones and supercells (*M. Miglietta*)
- (22) Convection and atmospheric transport (*L. Labrador*)
- (23) Extreme atmospheric events Datasets, data access and special archives (*R. Biondi*)

(°) R. Baró Esteban, B. Esse, V. Feret-Lorgeril, H. Guermazi, M. Sanchez Marino

(°°) S. Andrei, A. Balogun, N. Da Silva, M. D. Georgescu Andrei, N. Maiti, L. Quitian Hernandez

Poster Session: E. Al-Momani, A. Argyrouli, T. Aubry, M. Baensch, N. Barbu, T. Baroni&P.Pandey, D. F. Campos Duran, S. Eastman, J. Gilchrist, M. Grosu, V. Hahn, J. Kent, A. Kopp, K. Mohr, M. Petkova, C. Rowell, F. Toanca, M. Varnam.



**(+) Guided tour (with professional guides) to the Tarquinia Necropolis and the national archeological museum**

**<http://www.tarquinia-cerveteri.it/en/museum-and-necropolis-of-tarquinia/necropolis>**

**(++) Walk to the Saline and the seaside**

**Dinners**

**Tuesday 17: Farina e Tempesta**

**Wednesday 18: Le due Orfanelle**

**Thursday 19: Il Butto medievale**

**Friday 20: Namo**

**Saturday 21: Ambaradam**

**Sunday 22: Trattoria Piazza d'Erba**

**Monday 23: Farina e tempesta**

**Tuesday 24: Namo**

**Lunches**

**Wednesday 18: Namo**

**Thursday 19: Ambaradam**

**Friday 20: Trattoria Piazza d'Erba**

**Saturday 21: Le due Orfanelle**

**Sunday 22: Il Butto medievale**

**Monday 23: Le due Orfanelle**

**Tuesday 24: Ambaradam**

**Wednesday: Vote your favourite!**