



9th HyMeX Workshop

21 - 25 September 2015, Mykonos Island, Greece

Workshop programme

Updated September 15, 2015



Information and contact: workshop@hymex.org

| Monday 21 September | Tuesday 22 September | Wednesday 23 September | Thursday 24 September | Friday 25 September | Saturday 26 September | |
|---------------------|---|--|--|---|---|---------------------------|
| 09:00 | Opening session | Air-sea coupling | Lightning | TH1.1 Regional climate modelling | F1.1 Heavy precipitation | Excursion to Delos Island |
| | | T1.1 Air-sea coupling | W1.1 Joint TALOS HyMex lightning session | TH1.2 Heavy precipitation, microphysics | F1.2 Droughts and water resources | |
| 10:00 | 5-year programme review Facts & figures | T1.2 Flash-floods T1.3 Microphysics, lightning, study of rain IOPs | W1.2 Regional climate modelling, air-sea coupling | TH1.3 Flash-floods vulnerabilities | F1.3 FLIRE project | |
| | Coffee break | | | Coffee break | | |
| 11:00 | Heavy precipitation Water vapour Microphysics IOP Rain | Vulnerabilities | Data assimilation ensemble prediction systems | TH2.1 Regional climate modelling TH2.2 Data assimilation, ensemble prediction systems, heavy precipitation, flash-floods, vulnerabilities | F2.1 IODA-MED final meeting F2.2 Regional climate modelling, Med-CORDEX-2 F2.3 FLIRE project | |
| 12:00 | M1.1 Heavy precipitation, study of rain IOPs | T2.1 Vulnerabilities T2.2 Dense water formation, ocean proc. T2.3 Mediterranean cyclones | W2.1 Ensemble prediction systems W2.2 Regional climate modelling W2.3 Air-sea coupling, water vapour | | | |
| 13:00 | Lunch break | Lunch break | Lunch break | Lunch break | Lunch break | |
| 14:00 | Flash-floods | Droughts and water resources | W3.1 Heavy precipitation W3.2 Regional climate modelling, air-sea coup., dense water form, W3.3 Vulnerabilities | TH3.1 Regional climate modelling, heavy precipitation, flash-floods, droughts | Discussion programme orientations | |
| 15:00 | M2.1 Flash-floods M2.2 Dense water formation, ocean proc. M2.3 IODA-MED final meeting | T3.1 Droughts and water resources T3.2 Heavy precipitation, water vapour T3.3 Dense water formation, ocean proc. | | | | |
| 16:00 | | | | | | |
| 17:00 | Poster session 1 and coffee break | Poster session 2 and coffee break | Poster session 3 and coffee break | Poster session 4 and coffee break | | |
| 18:00 | Dense water formation and ocean processes | Regional climate modelling | Discussion achievements & orientations | TH4.1 Regional climate modelling TH4.2 Heavy precipitation, study of rain IOPs, water vapour TH4.3 Lightning | | |
| 19:00 | M3.1 Flash-floods M3.2 Dense water formation, ocean proc. M3.3 IODA-MED final meeting | T4.1 Regional climate modelling T4.2 Data assimilation T4.3 Or a field campaign In the Eastern Med.? | | | | |
| 20:00 | Welcome reception | | | | | |
| 21:00 | | | Gala dinner | | | |

5-year science review, plenary

ST talks & meetings, parallel sessions

9th HyMeX workshop - Detailed programme

Monday 21 September 2015

09:15 - 09:45 Opening session

Room: Thalatta1 K. Lagouvardos et al.

09:45 - 10:30 5-year programme review: facts and figures

Room: Thalatta1 V. Ducrocq, P. Drobinski

10:30 - 11:00 Coffee break

11:00 - 12:00 5-year science review: heavy precipitation

Room: Thalatta1

11:00 Sources and transport of water vapour

C. Flamant

11:20 Microphysics in precipitating systems

J. Delanoë

11:40 Studies of IOPs (SOP1) precipitation events

S. Davolio

12:00 - 13:00 M1.1 - Heavy precipitation: IOP studies

Room: Thalatta1

Chair: N. Kalthoff

12:00 Observations and numerical simulations of a supercell over the Friuli-Venezia Giulia region (northeastern Italy) in HyMeX IOP2b
R. Rotunno (M. M. Miglietta, A. Manzato, R. Rotunno)

12:15 Heavy precipitation over Italy during HyMeX IOP13: numerical investigation using two mesoscale models
S. Davolio (S. Davolio, C. Barthlott)

12:30 A localized high precipitation event over Corsica triggered by lee side convergence
P. Scheffknecht (P. Scheffknecht, E. Richard, D. Lambert)

12:45 Offshore deep convection initiation and maintenance during HyMeX IOP16a heavy precipitation event
M. Martinet (M. Martinet, O. Nuisser, F. Duffourg, V. Ducrocq)

13:00 - 15:00 Lunch break

15:00 - 15:30 5-year science review: flash-floods

Room: Thalatta1

I. Braud

15:30 - 16:45 Parallel sessions & meetings M2.1, M2.2, M2.3

15:30 - 16:45 M2.1 - Flash-floods

Room: Thalatta1

Chair: E. Morin

15:30 Hydrological post event survey after the autumn 2014 floods in the Cévennes region in France: results and first hydrological analyses
O. Payrastré (O. Payrastré, P.-A. Ayrat, C. Barachet, V. Borell, B. Boudevillain, C. Bouvier, P. Brunet, P. Cantet, C. Coussot, G. Delrieu, A. Despax, J.-F. Didon-Lescot, M. Domergue, S. Ecrepont, S. Froidurot, N. Grard, L.-R. Lagadec, G. Le Bihan, R. Le Boursicaud, V. Mansanarez, P. Marchand, P. Martin, M.-L. Mosini, A. Mosset, R. Navas, L. Neppel, S. Perez, F. Raynaud, C. Saint-Martin, A. Wijbrans and all the HyMeX TTO2d team)

15:45 Non-contact discharge measurements to better understand the dynamics of flash floods in Mediterranean catchments
G. Dramais (G. Dramais, J. Le Coz, R. Le Boursicaud, F. Branger, B. Renard, I. Horner, I. Braud)

16:00 Flash floods hydrological process at the small catchment scale
C. Bouvier (C. Bouvier, M. Adamovic, P.-A. Ayrat, P. Brunet, J.-F. Didon-Lescot, R. Freydier, N. Patris, J.-L. Seidel)

16:15 Characterization of rainfall variability and uncertainty and its impact on the hydrological response during flash floods in the Ardèche catchment (2300 km²), France
I. Braud (I. Braud, H. Suspène, G. Delrieu, A. Wijbrans, B. Boudevillain, E. Leblois, B. Renard, M. Adamovic, F. Branger)

16:30 Soil hydraulic properties derived from inverse water content modelling under artificial rainfalls. Application to experimental sites in Cevennes, France
M. Adamovic (M. Adamovic, P.-A. Ayrat, C. Bouvier, P. Brunet, O. Le Bourgeois)

15:30 - 16:45 M2.2 - Dense water formation and ocean processes

Room: Thalatta2

Chair: P. Garreau

15:30 Observation of deep convection in 2012-2013
P. Testor (P. Testor, T. Cai, A. Bosse, L. Mortier, L. Houpert, F. D'Ortenzio, V. Taillandier, L. Coppola, L. Prieur, P. Conan, A. Alvarez, R. Onken, J. Tintore)

15:45 Destruction of potential vorticity in the vicinity of fronts in the Gulf of Lions as observed with gliders and simulated by a very-high resolution model
A. Bosse (A. Bosse, P. Testor, L. Mortier, P. Damien, C. Estournel, P. Marsaleix, L. Prieur)

16:00 Dynamics of the northwestern Mediterranean during the HyMeX/ASICS experiment: a PV-perspective
H. Giordani (H. Giordani, C. Lebeaupin Brossier, F. Léger, L. Prieur, G. Caniaux, R. Waldman)

16:15 Impact of mesoscale eddies on ocean deep convection in the northwestern Mediterranean sea
R. Waldman (R. Waldman, S. Somot, M. Herrmann, F. Sevaut, G. Caniaux, P. Testor, C. Estournel, H. Giordani, R. Benshila, C. Q. Akuetevi, T. Arsouze)

16:30 High resolution modelling of dense water formation in the Northwestern Mediterranean
C. Estournel (C. Estournel, P. Marsaleix)

15:30 - 16:45 M2.3 - Side-meeting: IODA-MED final meeting

Room: Pelagos

Chair: E. Richard

16:45 - 17:30 Poster session 1 and coffee break

17:30 - 18:00 5-year science review: dense water formation and ocean mesoscale processes

Room: Thalatta1 H. Giordani, P. Testor

18:00 - 19:00 Parallel sessions & meetings M3.1, M3.2, M3.3

18:00 - 19:00 M3.1 - Flash-floods

Room: Thalatta1 Chair: O. Payrastre

- 18:00** Hydrological evaluation of X-band polarimetric radar rainfall estimation in the eastern Italian Alps
M. N. Anagnostou (M. N. Anagnostou, E. I. Nikolopoulos, J. Kalogiros, E. N. Anagnostou, F. Marra, E. Mair, G. Bertoldi, U. Tappeiner, M. Borga)
- 18:15** Flash flood occurrence and relation to the rainfall hazard in Attica, Greece
K. Papagiannaki (K. Papagiannaki, K. Lagouvardos, V. Kotroni, A. Bezes)
- 18:30** Space-time patterns of convective rain cells and flash flood response in the eastern Mediterranean
E. Morin (E. Morin, N. Peleg, H. Yakir, M. Karklinsky)
- 18:45** Flood modeling of the 21-23 November 2014 events in the High-Atlas Mountains (Morocco)
Y. Tramblay (Y. Tramblay, L. Hanich, M. Benrhanem, A. Saidi)

18:00 - 19:00 M3.2 - Dense water formation and ocean processes

Room: Thalatta2 Chair: C. Estournel

- 18:00** Physical processes from a 1D column model simulation of the north-western Mediterranean basin from August 2012 to August 2013
G. Caniaux (G. Caniaux, H. Giordani, L. Prieur, R. Waldman, J. Beuvier, C. Estournel, V. Garnier, P. Garreau)
- 18:15** Physical processes acting in a numerical oceanic model during the convection period of SOP2
P. Garreau (P. Garreau, V. Garnier)
- 18:30** Observing mesoscale instabilities of the Northern Current in the North Western Mediterranean Sea : a combined study using gliders, surface drifters, moving vessel profiler and vessel data in the Ligurian Sea
I. Pairaud (I. Pairaud, P. Garreau, D. Le Berre, D. Fernandez Bruyère, L. Bellomo, V. Garnier)
- 18:45** Observations of diapycnal mixing in the western Mediterranean Sea
B. Ferron (B. Ferron, P. Bouruet-Aubertot, Y. Cuyppers, K. Schroeder, M. Borghini, T. Arsouze, Benjamin Lémonnier)

18:00 - 19:00 M3.3 - Side-meeting: IODA-MED final meeting

Room: Pelagos Chair: E. Richard

19:00 Welcome reception

09:00 - 09:30 5-year science review: air-sea fluxes, marine and ocean boundary layer coupled processes

Room: Thalatta1 M.N. Bouin, C. Lebeaupin-Brossier

09:30 - 10:45 Parallel sessions & meetings T1.1, T1.2, T1.3

09:30 - 10:45 T1.1 - Air-sea coupling

Room: Thalatta1 Chair: S. Bastin

09:30 Lagrangian dynamics of the Mistral during the HyMeX SOP2

P. Drobinski (P. Drobinski, B. Alonzo, C. Basdevant, P. Cocquerez, A. Doerenbecher, N. Fourrié, M. Nuret)

09:45 The marine atmospheric boundary layer during the HyMeX/ASICS-MED campaign: structure under strong wind conditions and impact on turbulent flux estimates

P.-E. Brilouet (P.-E. Brilouet, P. Durand, G. Canut)

10:00 High-resolution air-sea coupling with AROME-NEMO WMED for heavy precipitation event study

R. Rainaud (R. Rainaud, C. Lebeaupin Brossier, V. Ducrocq, H. Giordani, N. Fourrié, M.-N. Bouin)

10:15 Dense water formation in NEMO-AROME WMED: initial conditions and coupling impacts

F. Léger (F. Léger, C. Lebeaupin Brossier, H. Giordani, T. Arsouze, J. Beuvier, M.-N. Bouin, V. Ducrocq, N. Fourrié, M. Nuret)

10:30 Comparison of air-sea turbulent fluxes parameterization, with air-sea coupled model, during HyMeX SOP1 and SOP2

L. Seyfried (L. Seyfried, E. Richard, P. Marsaleix, C. Estournel)

09:30 - 10:45 T1.2 - Flash-floods

Room: Thalatta2 Chairs: E. Nikolopoulos, I. Braud

09:30 Towards an hydrological ensemble forecasting system for Mediterranean flash floods

S. Edouard (S. Edouard, B. Vincendon, V. Ducrocq)

09:45 Hydrometeorological assessment of AROME EPS on the fall 2014 HyMeX events

B. Vincendon (B. Vincendon, V. Ducrocq, C. de Saint-Aubin, L. Garandeau, L. Brech, A. Lovat, G. Larvor, P. Gastrin)

10:00 Advancing satellite-based flood prediction over complex terrain with the aid of high-resolution atmospheric modeling

E.I. Nikolopoulos (E.I. Nikolopoulos, N. Bartsotas, E.N. Anagnostou, G. Kallos)

10:15 5-year science outlook meeting: flash-floods

Chair: I. Braud

09:30 - 10:45 T1.3 - 5-year science outlook meeting: microphysics, lightning and heavy precipitation systems

Room: Pelagos Chairs: J. Delanoë, S. Coquillat, E. Richard

10:45 - 11:15 Coffee break

11:15 - 11:45 5-year science review: society vulnerabilities facing high-impact weather

Room: Thalatta1 O. Petrucci

11:45 - 13:00 Parallel sessions & meetings T2.1, T2.2, T2.3

11:45 - 13:00 T2.1 - Vulnerabilities

Room: Thalatta1 Chair: C. Llasat

11:45 Effects of floods and landslides on people in a Mediterranean region (Calabria, Italy): victims, injured and involved people

O. Petrucci (O. Petrucci, A. A. Pasqua)

12:00 Are individual's perceptual and behavioural responses related to the rainfall severity during the fall 2014 episodes in southern France?

I. Ruin (I. Ruin, V. Tournon, C. Cavalière, B. Boudevillain, C. Lutoff, P.-A. Davoine, G. Molinié, J.-D. Creutin)

12:15 Assessment of motorists' exposure to flash floods in the Gard region: integrating travel-activity adaptation behaviors and decision-making processes

S. Shabou (S. Shabou, S. Debionne, I. Ruin, J.-D. Creutin, C. Lutoff)

12:30 Evolution of the vulnerability of people and property to flooding in three cities of the Gard department (south of France)

E. Dubos-Paillard (J. Boulier, E. Dubos-Paillard, A. Pavard, V. Sanseverino)

12:45 Analyzing social vulnerability to flash floods: a sociological case study of residential practices

S. Durand (S. Durand, C. Lutoff, S. Duvillard)

11:45 - 13:00 T2.2 - Dense water formation and ocean processes

Room: Thalatta2 Chairs: H. Giordani, P. Testor

11:45 The TRANSMED SST and SSS time series in the Gulf of Lions: from events to interannual variability

I. Taupier-Letage (I. Taupier-Letage, G. Rougier)

12:00 Intensive Argo floats deployments in the western Mediterranean Sea from 2012 to 2015

L. Coppola (L. Coppola, F. D'Ortenzio, P. Conan, O. Pasquero de Fommervault, N. Mayot, S. Le Reste, P. Testor, I. Taupier-Letage, C. Estournel)

12:15 5-year science outlook meeting: dense water formation and ocean processes

Chairs: H. Giordani, P. Testor

11:45 - 13:00 T2.3 - 5-year science outlook meeting: Mediterranean cyclones

Room: Pelagos Chairs: E. Flaounas, S. Davolio

13:00 - 15:00 Lunch break

15:00 - 15:30 5-year science review: droughts and water resources

Room: Thalatta1 *J. Polcher, P. Quintana-Segui*

15:30 - 16:45 Parallel sessions & meetings T3.1, T3.2, T3.3

15:30 - 16:45 T3.1 - Droughts and water resources

Room: Thalatta1 *Chair: Y. Tramblay*

- 15:30** The Earth2Observe Spanish case study: simulation of drought processes in Spain
P. Quintana-Segui (P. Quintana-Segui, G. Miguez-Macho, M. Turco, M. C. Llasat, A. Martinez de la Torre)
- 15:45** The role of the atmospheric coupling in the ability of ORCHIDEE to simulate droughts
J. Polcher (J. Polcher, M. Stefanon)
- 16:00** Evaluating the respective impact of the radiative forcing and fertilization response of vegetation to a carbon dioxide enriched atmosphere during severe heatwaves
M. Stefanon (L. Lemordant, P. Gentine, M. Stefanon, P. Drobinski)
- 16:15** Winter dry spells indexes in the Mediterranean basin: variability (1951-2013), oceanic and atmospheric forcing (1979-2013)
F. Raymond (F. Raymond, A. Ullmann, P. Camberlin)
- 16:30** How much does weather control fire size and intensity in the Mediterranean region?
C. Hernandez (C. Hernandez, P. Drobinski, S. Turquety, J-L. Dupuy, C. Keribin)

15:30 - 17:00 T3.2 - Heavy precipitation: water vapour and storm environment

Room: Thalatta2 *Chair: K. Horvath*

- 15:30** Continuous humidity profiling using a wind-profiler radar in the UHF band (continued)
F. Saïd (F. Saïd, B. Campistron, D. Bengochea, O. Bock, P. Di Girolamo, D. Legain)
- 15:45** Observation of low-level wind reversals in the Gulf of Lion area and their impact on the water vapour distribution and variability
P. Di Girolamo (P. Di Girolamo, C. Flamant, M. Cacciani, E. Richard, V. Ducrocq, D. Summa, D. Stelitano, N. Fourrié, F. Saïd)
- 16:00** Coherence between multi-instrument and multi-model atmospheric moisture retrievals in the framework of the HyMeX SOP1
P. Chazette (P. Chazette, C. Flamant, X. Shang, J. Totems, J.-C. Raut, A. Doerenbecher, V. Ducrocq, N. Fourrié, O. Bock, S. Cloché)
- 16:15** Multi-scale interactions between moist-air flow and deep precipitation during HyMeX IOP15a heavy precipitation event
K. Lee (K. Lee, C. Flamant, V. Ducrocq, Nadia Fourrié, P. Chazette, O. Bock)
- 16:30** Catastrophic floods in the lower Sava river basin in May 2014
B. Ivančan-Picek (B. Ivančan-Picek, N. Strelec Mahović, T. Renko, T. Vujnović)
- 16:45** Long-term variability of CCN at a marine background site of the eastern Mediterranean
A. Bougiatioti (A. Bougiatioti, I. Stavroulas, G. Kouvarakis, A. Nenes, N. Mihalopoulos)

15:30 - 16:45 T3.3 - 5-year science outlook meeting: dense water formation and ocean processes

Room: Pelagos *Chairs: H. Giordani, P. Testor*

16:45 - 17:30 Poster session 2 and coffee break

17:30 - 18:00 5-year science outlook meeting: regional climate modelling

Room: Thalatta1 *B. Ahrens, E. Coppola, G. Jorda, G. Sannino, S. Somot*

18:00 - 19:00 Parallel sessions & meetings T4.1, T4.2, T4.3

18:00 - 19:00 T4.1 - Regional climate modelling meeting: Med-CORDEX activities for the period 2010-2015

Room: Thalatta1 *Chair: B. Ahrens*

18:00 - 19:00 T4.2 - Data assimilation

Room: Thalatta2 *Chair: J. Campins*

- 18:00** The second AROME-WMED reanalysis of SOP1
N. Fourrié (N. Fourrié, M. Nuret, P. Brousseau, A. Doerenbecher, H. Bénichou, P. Moll, O. Bock, F. Saïd)
- 18:15** Benefits of sequential data assimilation methods for the predictability of Mediterranean severe weather
V. Homar (D. Carrió, V. Homar)
- 18:30** Impact of the recent improvements of the AROME-France numerical weather prediction system on the convection forecasting
P. Brousseau (P. Brousseau, Y. Seity, N. Fourrié)
- 18:45** Development of a new ensemble data assimilation scheme for the convective scale AROME model
Y. Michel (Y. Michel, T. Montmerle)

18:00 - 19:00 T4.3 - Discussion about a future field campaign in the eastern Mediterranean

Room: Pelagos *Chairs: C. Flamant, N. Kalthoff, E. Morin*

09:00 - 09:30 5-year science review: lightning and atmospheric electricity

Room: Thalatta1
S. Coquillat

09:30 - 11:00 Parallel sessions & meetings W1.1, W1.2, W1.3

09:30 - 11:00 W1.1 - Joint TALOS HyMeX lightning session

Room: Thalatta1
Chair: C. Price

- 09:30** The TALOS project: climatology, nowcasting and forecasting of lightning activity
K. Lagouvardos (K. Lagouvardos, V. Kotroni, S. Kazadzis, T. Giannaros, A. Karagiannidis, E. Galanaki, E. Proestakis)
- 09:45** SAEETTA: fine-scale observation of the total lightning activity in the framework of the CORSICA atmospheric observatory
S. Coquillat (S. Coquillat, E. Defer, D. Lambert, J.-M. Martin, J.-P. Pinty, V. Pont, S. Prieur)
- 10:00** Lightning morphologies in the LMA-HyMeX database
G. Molinié (G. Molinié, J.-P. Pinty, H. Bresson, E. Defer, S. Coquillat)
- 10:15** Assimilation of Lightning Mapping Array (LMA) data into AROME-WMED: a first attempt on HyMeX IOP6
O. Caumont (C. Zecchin, O. Caumont, E. Defer, J.-P. Pinty, C. Bovalo, C. Barthe)
- 10:30** Simulation in a mesoscale model of several electrified storms observed by a LMA during HyMeX SOP1
J.-P. Pinty (J.-P. Pinty, C. Bovalo, P. Krehbiel, B. Rison, R. Thomas, E. Defer, E. Richard)
- 10:45** Performance evaluation of an operational lightning prediction system
T.M. Giannaros (T.M. Giannaros, V. Kotroni, K. Lagouvardos)

09:30 - 11:00 W1.2 - Regional climate modelling: Heavy precipitation at climate scale

Room: Thalatta2
Chair: E. Coppola

- 09:30** Extreme rainfall in southern France: spatio-temporal features and trends
J. Blanchet (J. Blanchet, G. Molinié, V. Méléze, J. Touati)
- 09:45** Sensitivity of the representation of Heavy Precipitation Events over the western Mediterranean region to the new physical parameterizations in the Regional Climate Model ALADIN
G. Fosser (G. Fosser, R. Roehrig, O. Nuissier, C. Dubois, S. Somot)
- 10:00** How regional climate models feature rainfall in southern France
G. Molinié (S. Froidurot, G. Molinié, A. Diedhiou, S. Bastin, L. Li, R. Roehrig)
- 10:15** Investigating the effects of the internal variability of a regional climate model on the Mediterranean cyclones
E. Sanchez-Gomez (E. Sanchez-Gomez, S. Somot)
- 10:30** Spatiotemporal characterisation of Mediterranean extreme precipitation events: a multi-model assessment
L. Cavicchia (L. Cavicchia, E. Scoccimarro, S. Gualdi, B. Ahrens, S. Berthou, P. Drobinski, D. Conte, A. Dell'Aquila, V. Djurdjevic, C. Dubois, C. Gallardo, C. Torma)
- 10:45** Estimation of regional precipitation changes using RegCM experiments
R. Pongracz (R. Pongracz, J. Bartholy, I. Pieczka, K. Andre)

09:30 - 11:00 W1.3 - 5-year science outlook meeting: air-sea coupling from an ocean processes perspective

Room: Pelagos
Chairs: H. Giordani, P. Testor, M.N. Bouin, C. Lebeaupin-Brossier

11:00 - 11:30 Coffee break

11:30 - 12:00 5-year science review: atmospheric convective-scale data assimilation and ensemble prediction systems

Room: Thalatta1
N. Fourrié

12:00 - 13:00 Parallel sessions & meetings W2.1, W2.2

12:00 - 13:00 W2.1 - Ensemble prediction systems

Room: Thalatta1
Chair: V. Homar

- 12:00** New strategy for probabilistic severe weather forecast: Mesoscale Ensemble Prediction Systems. The new AEMET project.
J.A. Garcia-Moya (J.A. Garcia-Moya, A. Callado, P. Escribà, C. Santos)
- 12:15** Predictability of high impact weather events in the Mediterranean
C. Keil (C. Keil, M. Westphal, C. Marsigli, O. Nuissier)
- 12:30** Multi-model ensemble hydrometeorological simulations of the 2011 and 2014 flash floods in Genoa, Italy: a comparison study in the framework of the DRIHM project
O. Caumont (O. Caumont, A. Hally, L. Garrote, E. Richard, A. Weerts, F. Delogu, E. Fiori, N. Rebora, A. Parodi, A. Mihalović, M. Ivković, L. Dekić, W. van Verseveld, Q. Harpham, O. Nuissier, V. Ducrocq, D. D'Agostino, A. Galizia, E. Danovaro, A. Clematis)
- 12:45** High-resolution climatography of seasonal precipitation
P. Kunin (D. Rostkier-Edelstein, Y. Liu, W. Wu, P. Kunin, M. Ge, A. Givati)

12:00 - 13:00 W2.2 - Regional climate modelling: Heavy precipitation at climate scale

Room: Thalatta2
Chair: E. Coppola

- 12:00** Temperature-precipitation extremes relationship in the Mediterranean: past climate assessment and projection in anthropogenic scenarios
P. Drobinski (P. Drobinski, N. Da Silva, G. Panthou, S. Bastin, C. Muller, B. Ahrens, M. Borga, D. Conte, G. Fosser, F. Giorgi, I. Güttler, V. Kotroni, L. Li, E. Morin, B. Onol, P. Quintana-Segui, R. Romera, Torma Csaba Zsolt)
- 12:15** Improving convection parameterization in the context of Mediterranean heavy precipitating events over land
R. Roehrig (R. Roehrig, G. Fosser, O. Nuissier, F. Duffourg, I. Beau, S. Somot)
- 12:15** Regional climate modelling: Heavy precipitation at climate scale meeting
Chair: E. Coppola, S. Anquetin

12:00 - 13:00 W2.3 - 5-year science outlook meeting: air-sea coupling and influences on atmospheric processes

Room: Pelagos
Chairs: M.N. Bouin, C. Lebeaupin-Brossier, P. Di Girolamo, C. Flamant, N. Kalthoff

13:00 - 15:00 Lunch break

15:00 - 16:30 Parallel sessions & meetings W3.1, W3.2, W3.3

15:00 - 16:30 W3.1 - Heavy precipitation: High-resolution modelling studies
Room: Thalatta1
Chair: S. Davolio

- 15:00** Model study of HyMeX IOP8 - a Mediterranean heavy precipitation event
L. Röhner (L. Röhner, V. Homar, D. Carrio, A. Montani, U. Corsmeier)
- 15:15** Sensitivity of numerical simulations of a Mesoscale Convective System in France, during the HyMeX SOP1 using the WRF model
S. Dafis (S. Dafis, K. Lagouvardos, V. Kotroni, Th. M. Giannaros, A. Bartzokas)
- 15:30** Evaluation of the 2-moment microphysical scheme LIMA based on HyMeX IOP6 microphysical observations
B. Vié (B. Vié, G. Delautier, M. Taufour)
- 15:45** Evaluation of the turbulence representation in deep convective clouds
D. Ricard (D. Ricard, A. Verrelle, C. Lac)
- 16:00** Influence of the Alps and the Apennines affecting two WRF forecasts during HyMeX
R. Rotunno (E. Pichelli, R. Rotunno, R. Ferretti)
- 16:15** A summary of orographic enhancement precipitation case studies in the eastern Pyrenees mountain range
J. Bech (L. Trapero, J. Bech, F. Duffourg, J. Lorente)

15:00 - 16:30 W3.2 - Regional climate modelling, air-sea coupling, dense water formation: air-sea fluxes and ocean circulation
Room: Thalatta2
Chair: G. Sannino

- 15:00** Mesoscale winds in regional climate models: Mistral and Tramontane
A. Obermann (A. Obermann, B. Edelmann, B. Ahrens)
- 15:15** Heat and salt redistribution in the Mediterranean Sea: insights from the MedCORDEX model ensemble
D. Gomis (J. Llasses, G. Jordà, D. Gomis, F. Adloff, D. Macías-Moy, A. Harzallah, T. Arsouze, B. Ahrens, L. Li, A. Elizalde, G. Sannino)
- 15:30** Multi-model analysis of the inter-annual variability of the Mediterranean thermohaline circulation
G. Sannino (G. Sannino, M. Adani, J. Beuvier, A. Carrillo, G. Jordà, G. Pisacane, F. Sevault, M.V. Struglia, V. Vervatis)
- 15:45** Regional climate modelling, air-sea coupling, dense water formation: air-sea fluxes and ocean circulation meeting
Chair: G. Sannino

15:00 - 16:30 W3.3 - Vulnerabilities
Room: Pelagos
Chairs: C. Llasat, O. Petrucci, I. Ruin

- 15:00** Weather types and return periods: are they useful to characterize historical floods?
M. C. Llasat (M. C. Llasat, J. Gilabert, M. Llasat-Botija, R. Marcos, M. Cortés, L. Mediero)
- 15:15** Identifying the most relevant predictors of flash flood human impacts: an analysis of the U.S. storm database
G. Terti (G. Terti, I. Ruin, S. Anquetin, J. J. Gourley)
- 15:30** 5-year science outlook meeting: vulnerabilities
Chairs: C. Llasat, O. Petrucci, I. Ruin

16:30 - 17:15 Poster session 3 and coffee break

17:15 - 19:00 Discussion on the achievements and future orientations of the programme
Room: Thalatta1
Chairs: V. Ducrocq, P. Drobinski

20:00 Gala dinner

09:00 - 10:30 Parallel sessions & meetings TH1.1, TH1.2, TH1.3

09:00 - 10:30 TH1.1 - Regional climate modelling: Fully-coupled regional climate system models in Med-CORDEX
Room: Thalatta1 Chair: B. Ahrens

- 09:00** Simulations of the Mediterranean climate and climate change projections with the CMCC coupled regional model
L. Cavicchia (L. Cavicchia, S. Gualdi, A. Sanna, P. Oddo)
- 09:15** Cyclone contribution to the Mediterranean Sea water budget
E. Flaounas (E. Flaounas, A Di Luca, P Drobinski, S Mailler, T Arsouze, S Bastin, K. Beranger, C Lebeaupin Brossier)
- 09:30** Impact of ocean-atmosphere coupling and high resolution on the simulation of tropical-like cyclones over the Mediterranean Sea: multi-model analysis with MedCORDEX and EURO-CORDEX simulations
M. A. Gaertner (M. A. Gaertner, M. Domínguez, R. Romera, V. Gil, E. Sánchez, C. Gallardo, M. M. Miglietta, Med-CORDEX and EURO-CORDEX teams)
- 09:45** Aerosol effects on water cycle and ocean convection in the Mediterranean basin: a regional coupled modelling approach
P. Nabat (P. Nabat, S. Somot, M. Mallet, F. Sevault)
- 10:00** **Regional climate modelling: Fully-coupled regional climate system models in Med-CORDEX meeting**
Chair: B. Ahrens

09:00 - 10:15 TH1.2 - Heavy precipitation, microphysics
Room: Thalatta2 Chair: G. Delrieu

- 09:00** Subgrid variability of the raindrop size distribution
T. Raupach (T. H. Raupach, A. Berne)
- 09:15** Comparison of rainfall estimate accuracy for small scale hydrology, based on operational network-, high resolution rain gauge network- and radar data in the Cévennes-Vivarais region, France
A. Wijbrans (A. Wijbrans, G. Delrieu, G. Nord)
- 09:30** Relationships between total lightning activity, microphysics, and kinematics during the 24 September 2012 HyMeX bow-echo system
S. Coquillat (J-F. Ribaud, O. Bousquet, S. Coquillat)
- 09:45** Orographic impact on the precipitation microphysical processes during SOP1
J. Van Baelen (J. Zwiebel, J. Van Baelen, S. Anquetin, B. Boudevillain, Y. Pointin)
- 10:00** Comparison of two hourly rainfall stochastic models: the ability to reproduce extreme rainfall at different time scales
P. Cantet (P. Cantet, P. Arnaud)

09:00 - 10:30 TH1.3 - 5-year science outlook meeting: flash-floods and vulnerabilities
Room: Pelagos Chairs: I. Braud, C. Llasat, O. Petrucci

10:30 - 11:00 Coffee break

11:00 - 13:00 Parallel sessions & meetings TH2.1, TH2.2

11:00 - 13:00 TH2.1 - Regional climate modelling: ENVIMED MaHb project
Room: Thalatta1 Chair: K. Von Schuckmann

- 11:00** A review of the Mediterranean Sea heat and mass budgets
G. Jordà (G. Jordà, K. von Schuckmann, S. Josey, G. Caniaux, J. Garcia-Lafuente, S. Sammartino, C. Naranjo, E. Özsoy, J. Polcher, I. Gertman, G. Notarstefano, P. Poulain, S. Somot)
- 11:15** Regional ocean indicators in the Mediterranean Sea from in situ measurements during 2004-2014
K. von Schuckmann (K. von Schuckmann, G. Notarstefano, F. Calafat, P.-M. Poulain, I. Taupier-Letage, L. Prieur, M. Hamon, N. Reul)
- 11:30** The monitoring of thermohaline variability in the central Mediterranean combining continuous strait measurements and periodic basin scale surveys
S. Ben Ismail (S. Ben Ismail, C. Sammari, K. Schroeder, P.-M. Poulain)
- 11:45** On the representation of Mediterranean sea level in regional climate models
F. Adloff (F. Adloff, G. Jordà, S. Somot, F. Sevault, B. Meyssignac, T. Arzouse, L. Li, S. Planton)
- 12:00** **Regional climate modelling: ENVIMED MaHb project meeting**
Chair: K. Von Schuckmann

11:00 - 13:00 TH2.2 - 5-year science outlook meeting: integrated forecasting of heavy precipitation, flash-floods and impacts
Room: Thalatta2 Chairs: S. Anquetin, I. Braud, N. Fourrié, O. Paraystre, O. Petrucci, I. Ruin

13:00 - 15:00 Lunch break

15:00 - 16:45 TH3.1 - Regional climate modelling, heavy precipitation, flash-floods, droughts: Climate change impacts on the Mediterranean
Room: Thalatta1
Chair: E. Coppola

15:00 Impact of climate change on runoff timing over the Alpine region
E. Coppola (*E. Coppola, F. Raffaele, F. Giorgi, C. Torma*)

15:15 Hydrological impacts of climate change in Morocco and Tunisia
Y. Trambly (*Y. Trambly, D. Ruelland, L. Hanich, Z. Bargaoui*)

15:30 Regional climate modelling, heavy precipitation, flash-floods, droughts: Climate change impacts on the Mediterranean meeting
Chairs: E. Coppola, Y. Trambly

16:45 - 17:30 Poster session 4 and coffee break

17:30 - 19:00 Parallel sessions & meetings TH4.1, TH4.2, TH4.3

17:30 - 19:00 TH4.1 - Regional climate modelling: working groups on preparing Med-CORDEX-2 meeting
Room: Thalatta1
Chair: S. Somot

17:30 - 19:00 TH4.2 - 5-year science outlook meeting: heavy precipitation systems and storm environment
Room: Thalatta2
Chairs: S. Davolio, P. Di Girolamo, C. Flamant, S. Khodayar

17:30 - 19:00 TH4.3 - Lightning
Room: Pelagos
Chairs: S. Coquillat, K. Lagouvardos

17:30 Relations between convective clouds evolution rate and lightning characteristics
A. Karagiannidis (*A. Karagiannidis, K. Lagouvardos, V. Kotroni*)

17:45 Thunderstorms, lightning and sprite climatology in Israel and the Eastern Mediterranean
C. Price (*Colin Price Yoav Yair and the ILAN project team*)

18:00 5-year science outlook meeting: lightning
Chairs: S. Coquillat, K. Lagouvardos

Friday 25 September 2015

09:00 - 10:45 Parallel sessions & meetings F1.1, F1.2, F1.3

09:00 - 10:45 F1.1 - Heavy precipitation: Modelling studies

Room: Thalatta1

Chair: O. Nuisssier

09:00 Severe convection in the Mediterranean from microwave observations

J.-F. Rysman (J.-F. Rysman, C. Claud, J.-P. Chaboureau, J. Delanoe, B. Funatsu)

09:15 A seamless weather-climate multi-model intercomparison on the representation of high impact weather in the western Mediterranean: HyMeX IOP12

S. Khodayar (S. Khodayar, G. Fosser, S. Berthou, S. Davolio, P. Drobinski, V. Ducrocq, R. Ferretti, M. Nuret, E. Pichelli, E. Richard)

09:30 Results at the regional medium-resolution scale of the coupling of LMDZ physics in WRF for different severe Mediterranean events

L. Fita (L. Fita, P. Drobinski, F. Hourdin, L. Fairhead)

09:45 The atmospheric origin of the Boothbay harbor meteotsunami: a mesoscale modeling study

K. Horvath (K. Horvath, I. Vilibic, N. Strelec Mahovic)

10:00 5-year science outlook meeting: data assimilation and ensemble prediction systems

Chairs: N. Fourrié, Y. Michel, J. Garcia-Moya, O. Nuisssier

09:00 - 10:45 F1.2 - Droughts and water resources

Room: Thalatta2

Chairs: J. Polcher, P. Quintana-Segui

09:00 Introduction

P. Quintana-Segui, J. Polcher

09:15 National drought alert system in Spain: information needs and gaps

P. Quintana-Segui (C. Linés Díaz, P. Quintana-Segui, M. Werner)

09:30 Economic costs of water scarcity in the Mediterranean at the 2050 horizon

N. Neverre (N. Neverre, P. Dumas)

09:45 5-year science outlook meeting: droughts and water resources

Chairs: J. Polcher, P. Quintana-Segui

09:00 - 10:45 F1.3 - Side-meeting FLIRE project

Room: Pelagos

Chair: V. Kotroni

10:45 - 11:15 Coffee break

11:15 - 13:00 Parallel sessions & meetings F2.1, F2.2, F2.3

11:15 - 13:00 F2.1 - Side-meeting: IODA-MED final meeting

Room: Thalatta1

Chair: E. Richard

11:15 - 13:00 F2.2 - Regional climate modelling, Med-CORDEX-2: Preparing Med-CORDEX-2 meeting

Room: Thalatta2

Chair: S. Somot

11:15 - 13:00 F2.3 - Side-meeting FLIRE project

Chair: V. Kotroni

13:00 - 14:30 Lunch break

14:30 - 16:00 Discussion on the programme's future orientations.

Room: Thalatta1

Chairs: V. Ducrocq, P. Drobinski

Poster sessions

Poster session 1 - Monday 21 September 2015

- **P1.1:** - Heavy rain, flash floods and floods in Croatia in 2014
Dunja Placko-Vrsnak, Tomislava Hojsak, Tanja Renko
- **P1.2:** - Post-event survey of the 6-7 October 2014 flood, north of Montpellier (France)
Christophe Bouvier, Pascal Brunet, Agnès Crès, Anne Crespy, Claudine Dieulin, Pierre Marchand, Luc Neppel, Luc Seguis, Felix Raynaud, Aurore Remes
- **P1.3:** - Facing up to uncertainty in a flood forecasting service submitted to flash flood : overview of uncertainties, strategies and challenges.
A. Marchandise, E. Lefevre, A. Beaumel, D. Lalot
- **P1.4:** - Reservoirs cascade simulation add-on used with the SURFEX-TOP modelling platform: methods and results for a Bulgarian Mediterranean basin
Petko Tsarev , Beatrice Vincendon, Eram Artinyan, Nikolay Nedkov, Georgui Koshinchanov
- **P1.5:** - Analysis of the duration of flood waves on the Sava River during 2014
Dejan Petkovic
- **P1.6:** - A high-resolution rainfall re-analysis based on radar-rain gauge merging in the Cévennes-Vivarais region, France
Guy Delrieu, Brice Boudevillain, Annette Wijbrans, Audrey Confoland
- **P1.7:** - X-band weather radar monitoring product in Naples urban area: data quality, rain gauge-based calibration and hail detection
V. Capozzi , V. Mazzarella , G. Budillon , E. Picciotti , F.S. Marzano
- **P1.8:** - Evaluating Satellite Precipitation Error Propagation in Runoff Simulations of Mountainous Basins
Y. Mei, E.I. Nikolopoulos , E.N. Anagnostou , M. Borga
- **P1.9:** - Rain profiling with a UHF wind profiler and its application to microphysics studies
F. Saïd, B. Campistron, T. Payan, H. Delbarre, Y. Dufournet, A. Sokolov
- **P1.10:** - An uncertainty framework to estimate dense water formation rates : case study in the Northwestern Mediterranean.
Robin Waldman, Samuel Somot, Marine Herrmann, Pierre Testor, Claude Estournel
- **P1.11:** - Impact of assimilating the in-situ HyMeX SOP's observations on the modelling of the north-western Mediterranean Sea
J. Beuvier , G. Mikolajczak , M. Hamon , M. Drévilion , J.-M. Lellouche
- **P1.12:** - Angular Momentum Eddy Detection Algorithm (AMEDA) apply to North Western Mediterranean eddies
B. Le Vu, A. Stegner, T. Arsouze and N. Mkhinihi
- **P1.13:** - Black Sea – Aegean Sea asymmetric water exchange
E. Stanev
- **P1.14:** - The Tyrrhenian-Sicilian Current
M. Jouini , K. Béranger , T. Arsouze , S. Thiria , J. Beuvier and M. Crépon
- **P1.15:** - Combined use of satellite deduced composites for the analysis of extreme weather events in south east Mediterranean associated with heavy precipitation
Th.Mavrakou, G.Armenis, C.Cartalis and M. Zaloni

Poster session 2 - Tuesday 22 September 2015

- **P2.1:** - Projections and uncertainties of extreme rainfall using statistical downscaling of CMIP5 models: the case of Spain
R. Monjo , E. Gaitán , J. Pórtoles , J. Ribalaygua
- **P2.2:** - Spatio-temporal distribution of precipitation in the western Mediterranean basin in autumn 2012
K. Béranger , S. Anquetin , T. Arsouze , M.-N. Bouin , S. Berthou , B. Boudevillain , J. Beuvier , C. Claud , C. Lebeaupin Brossier , G. Delrieu , P. Drobinski , M. Hamon , E. Flaounas , J. Polcher , J.-F. Rysman , M. Stéfanon
- **P2.3:** - Analysis of the projected change in excessive precipitation using an RCM ensemble
J. Bartholy, R. Pongracz, A. Kis
- **P2.4:** - Systematic modulation of heavy precipitation in the region of Valencia (Spain) by Mistral-induced sea-surface cooling in the previous days
S. Berthou , S. Mailler , P. Drobinski , T. Arsouze , S. Bastin , K. Béranger , E. Flaounas , C. Lebeaupin Brossier , S. Somot , M. Stéfanon
- **P2.5:** - Insights on the SST diurnal cycle and its impact on turbulent air-sea fluxes: from a local (at the Lion buoy) to a basin-wide approach
S. Belamari , A. Adiyasa , C. Dubois , G. Caniaux , M.-N. Bouin and S. Somot
- **P2.6:** - Influence of the sea state on Mediterranean heavy precipitation: a case study from HyMeX SOP1
O. Thévenot , M.N. Bouin , V. Ducrocq , C. Lebeaupin-Brossier , O. Nuissier , J. Pianezze , F. Duffourg
- **P2.7:** - The problem of surface heat and water budget closure for the North-western Mediterranean basin
G. Caniaux, L. Prieur , H. Giordani
- **P2.8:** - Preliminary results of PROTEVS Mediterranean cruises (2015)
S. Louazel, S. Corréard, P. Garreau, V. Garnier
- **P2.9:** - Observations of turbulence and internal waves in the Strait of Sicily
P. Bouruet-Aubertot , B. Ferron , Y. Cuyppers , K. Schroeder , M. Borghini , S. Ben Ismail , S. Leizour , H. Bryden
- **P2.10:** - Analysis of the soil moisture distribution in two climatologically different areas using SURFEX model simulations, SMOS products and in situ measurements
Coll, M.A, S. Khodayar, R. Fernandez-Moran, E. Lopez-Baeza
- **P2.11:** - Interannual Variability in the Summertime Hydrological Cycle over European Regions
I. Zveryaev , M. Zahn , R. Allan
- **P2.12:** - Using Normalized Difference Vegetation Index (NDVI) and Enhanced Vegetation Index (EVI) time series to detect land degradation in an industrial area of Eastern Mediterranean – (Thrasio Plain – Greece)
A. Mavrakis , C. Papavasileiou , L. Salvati
- **P2.13:** - FF: The water budget and precipitation efficiency of the Medicane occurring in November 2011
L. Fita , E. Flaounas
- **P2.14:** - The characteristics of a High-Precipitation Tornadoic-Supercell in a metropolitan area of Northwest Greece
S. Dafis , C.J. Lolis , A. Bartzokas , T. Gkousarov
- **P2.15:** - CORSICA Atmospheric Observatory in the frame of the MISTRALS enhanced and long-term observation periods
D. Lambert , S. Coquillat , V. Pont , G. Athier , P. Augustin , R. Baïlle , F. Bordier , A. Colomb , E. Defer , H. Delbarre , J.-B. Filippi , F. Gheusi , G. Grignon , C. Jarnot , J.-F. Léon , M. Mallet , J.-M. Martin , F. Morandini , J.-F. Muzy , C. Paoli , J.-M. Pichon , J.-P. Pinty , S. Prieur , E. Richard , F. Saïd , S. Sauvage , J.-L. Savelli , P. Scheffknecht , J. Sciare , X. Silvani , J. Van Baelen , C. Vuillemin
- **P2.16:** - HyMeX database
A. Albert-Aguilar, G. Brissebrat , N. Belmahfoud , S. Cloché , T. Delacour , H. Ferré , L. Fleury , L. Labatut , K. Ramage

Poster session 3 - Wednesday 23 September 2015

- **P3.1:** - A New Technique for Assimilation of High Density Observations in NWP Models at Convective Scales. Application to HyMeX SOP-1 Radar Data
C. Geijo
- **P3.2:** - Impacts of KITCube extra observations on the prediction of the HyMeX IOP13 severe weather event
D. Carrió ; V. Homar ; U. Corsmeier
- **P3.3:** - Impact of non-conventional and targeted observations on short-range forecast during HyMeX-SOP1 using HARMONIE
J. Campins , J. Sánchez , B. Navascués and J. Calvo
- **P3.4:** - Comparison of UHF wind profiler radar data with AROME-WMED reanalysis within the French Mediterranean coast
E. Maksimovich , A. Sokolov , H. Delbarre, F. Saïd , B. Campistron
- **P3.5:** - Large scale moisture patterns and their link with heavy precipitation events during the HyMeX SOP1
Cyrille Flamant, Patrick Chazette, Keun-Ok Lee , Jean-Christophe Raut, Olivier Bock, Xiaoxia Shang, Julien Totems
- **P3.6:** - Overview of the Raman lidar measurements in the frame of the HyMeX-SOP 1
Paolo Di Girolamo a, Cyrille Flamant b, Donato Summa a, Dario Stelitano a, Marco Cacciani c, Patrick Chazette d
- **P3.7:** - A high quality reprocessed ground-based GPS dataset for atmospheric process studies, radiosonde and model evaluation, and reanalysis of HyMeX Special Observing Period
O. Bock , P. Bosser , R. Pacione , M. Nuret , N. Fourrié , A. Parracho
- **P3.8:** - Improved estimation of the tropospheric delay component in GPS measurements in the western Corinth Gulf (Greece), by the use of a high-resolution meteorological model: The PaTrop Experiment
N. Roukounakis , P. Elias , P. Briole , A. Argyriou , I. Kioutsioukis , A. Retalis , D. Katsanos
- **P3.9:** - Evaluating multimodel variability of humidity over Europe using long term GPS network and ground base datasets.
S. Bastin , O. Bock , A. Parracho , M. Chiriaco , B. Ahrens, D. Conte, M. Dominguez Alonso , L. Li, R. Roehrig, P. Drobinski
- **P3.10:** - An overview on the current HyMeX ST-Lightning activities: from the SOP1 to the LOP
The HyMeX ST-Lightning Team
- **P3.11:** - Cyclone activity and lightning distribution over the Mediterranean
E. Galanaki , K. Lagouvardos , E. Flaounas , V. Kotroni
- **P3.12:** - Looking at the influence of lightning occurrence on the change of microphysics orientation inferred from HyLMA and MXPOL data during the 24 September 2012 IOP6 case
E. Defer , J. Grazioli , A. Bernes , W. Rison , P. Krehbiel , J.-P. Pinty , S. Coquilatt
- **P3.13:** - Lightning and Galactic Cosmic rays
Mavrakis A., Kotroni V., Lagouvardos K.
- **P3.14:** - Regional climate simulations using RegCM4 over Europe and Mediterranean: the impacts of boundary conditions, horizontal resolution and the model time-step
I. Guttler , L. Srnec
- **P3.15:** - Aerosol types and lightning activity over the Mediterranean Sea
E. Proestakis, S. Kazadzis, K. Lagouvardos, V. Kotroni, E. Marinou, V. Amiridis
- **P3.16:** - Study of an intense local wind regime in northern Greece based on observations and numerical simulations
I. Koletsis , T.M. Giannaros , K. Lagouvardos , V. Kotroni

Poster session 4 - Thursday 24 September 2015

- **P4.1:** - The « economic » value of the French convective-scale AROME Ensemble Prediction System for High Precipitation Events forecasting during HyMeX SOP1 period
E. Chabot, F. Bouttier
- **P4.2:** - Evaluation of two convection permitting ensemble systems in the HyMeX Special Observation Period (SOP1) framework
O. Nuisser , C. Marsigli, B. Vincendon, A. Hally, F. Bouttier, A. Montani , T. Paccagnella
- **P4.3:** - Assessment of the Ensemble Performance of Modelled Radar Reflectivities
R. Osinski , F. Bouttier
- **P4.4:** - Scaling of the horizontal size of the rain / no rain events in mesoscale convective systems (MCS). A comparison of different rain measurement techniques using the HYMEX database
C. Duroure, J. Zwiebel, S. Banson, A. Schwarzenboeck , J. Van Baelen, W. Wobrock
- **P4.5:** - Statistical-downscaling of seasonal precipitation
Dorita Rostkier-Edelstein, Pavel Kunin, Thomas Hopson, Yubao Liu and Amir Givati
- **P4.6:** - Capabilities and limitations of weather radar based nowcasting forecasts applied to selected Mediterranean Heavy Precipitation Events
J. Bech , M. Berenguer
- **P4.7:** - Error analysis of satellite precipitation estimates to improve flood warning applications in urban coastal
Marios N. Anagnostou , Archontia Lykou , Yagmur Derin , Christos Makropoulos
- **P4.8:** - Intense precipitation events over the Euro-Mediterranean region: future projections and dependence on the time scale definition
Enrico Scoccimarro, Gabriele Villarini, Silvio Gualdi, Alessio Bellucci, Pier Giuseppe Fogli, Matteo Zampieri and A. Navarra
- **P4.9:** - Including the assessment of external vulnerability to flooding in the AIGA method: a step forward an integrated chain of flood warnings
Clotilde Saint-Martin , Catherine Fouchier , Pierre Javelle , Johnny Douvinet , Freddy Vinet
- **P4.10:** - Parameterization of river speed within the SURFEX-TOP modelling platform: calibration and validation using a Bulgarian Mediterranean basin
Eram Artinyan, Beatrice Vincendon, Nikolay Nedkov, Petko Tsarev, Georgui Koshinchanov
- **P4.11:** - Regional hydrological models for distributed flash-floods forecasting: towards an estimation of potential impacts and damages.
Le Bihan G. , Payrastra O. , Gaume E. , Moncoulon D.
- **P4.12:** - Building a platform to show the flood events recorded in the mediterranean area
M.C. Llasat , A. Bezes , V. Kotroni , K. Lagouvardos , M. Llasat-Botija , K. Papagiannaki , A. A Pasqua , O. Petrucci , J. Rosselló , F. Vinet
- **P4.13:** - Visualization of high-impact weather events that occurred in Greece from 2000 to date
K. Papagiannaki , A. Bezes , K. Lagouvardos , and V. Kotroni
- **P4.14:** - Causes and effects of the 2010 March damaging hydrogeological event in Catalonia, Calabria and Balearic Islands
O. Petrucci , L. Aceto ; M. Llasat-Botija , A. A. Pasqua , J. Rosselló , M. C. Llasat
- **P4.15:** - Impact of land surface coupling on the Mediterranean continental water cycle.
M. Stefanon , J. Polcher
- **P4.16:** - Assessing the WRF-chem model in simulating the Saharan dust concentration over the Mediterranean region
E. Flaounas , V. Kotroni , K. Lagouvardos , C. Flamant

9th HyMeX workshop - Plenaries - Thalatta1

Monday 21 September

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| 09:15-09:45 | Opening session <i>K. Lagouvardos et al.</i> |
| 09:45-10:30 | 5-year programme review: facts and figures <i>V. Ducrocq, P. Drobinski</i> |
| 11:00-12:00 | 5-year science review: heavy precipitation |
| 11:00 | Sources and transport of water vapour <i>C. Flamant</i> |
| 11:20 | Microphysics in precipitating systems <i>J. Delanoë</i> |
| 11:40 | Studies of IOPs (SOP1) precipitation events <i>S. Davolio</i> |
| 15:00-15:30 | 5-year science review: flash-floods <i>I. Braud</i> |
| 17:30-18:00 | 5-year science review: dense water formation and ocean mesoscale processes <i>H. Giordani, P. Testor</i> |

Tuesday 22 September

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| 09:00-09:30 | 5-year science review: air-sea fluxes, marine and ocean boundary layer coupled processes <i>M.N. Bouin, C. Lebeaupin Brossier</i> |
| 11:15-11:45 | 5-year science review: society vulnerabilities facing high-impact weather <i>O. Petrucci</i> |
| 15:00-15:30 | 5-year science review: droughts and water resources <i>J. Polcher, P. Quintana-Segui</i> |
| 17:30-18:00 | 5-year science review: regional climate modelling <i>B. Ahrens, E. Coppola, G. Jorda, G. Sannino, S. Somot</i> |

Wednesday 23 September

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|-------------|---|
| 09:00-09:30 | 5-year science review: lightning and atmospheric electricity <i>S. Coquillat</i> |
| 11:30-12:00 | 5-year science review: atmospheric convective-scale data assimilation and ensemble prediction systems <i>N. Fourrié</i> |
| 17:15-19:00 | Discussion on the achievements and future orientations of the programme <i>V. Ducrocq, P. Drobinski</i> |

Friday 25 September

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|-------------|---|
| 14:30-16:00 | Discussion on the programme's future orientations <i>V. Ducrocq, P. Drobinski</i> |
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9th HyMeX workshop - Meetings and side-meetings

Monday 21 September

- 15:30-16:45
Pelagos **M2.3 - Side-meeting: IODA-MED final meeting**
Chair: E. Richard
- 18:00-19:00
Pelagos **M3.3 - Side-meeting: IODA-MED final meeting**
Chair: E. Richard

Tuesday 22 September

- 10:15-10:45
Thalatta2 **T1.2 - 5-year science outlook: flash-floods**
Chair: I. Braud
- 09:30-10:45
Pelagos **T1.3 - 5-year science outlook: microphysics, lightning, and heavy precipitation systems**
Chairs: J. Delanoë, S. Coquillat, E. Richard
- 12:15-13:00
Thalatta2 **T2.2 - 5-year science outlook: dense water formation and ocean processes**
Chairs: H. Giordani, P. Testor
- 11:45-13:00
Pelagos **T2.3 - 5-year science outlook: Mediterranean cyclones**
Chairs: E. Flaounas, S. Davolio
- 15:30-16:45
Pelagos **T3.3 - 5-year science outlook: dense water formation and ocean processes**
Chairs: H. Giordani, P. Testor
- 18:00-19:00
Thalatta1 **T4.1 - Regional climate modelling meeting: Med-CORDEX activities for the period 2010-2015**
Chair: B. Ahrens
- 18:00-19:00
Pelagos **T4.3 - Discussion about a future field campaign in the eastern Mediterranean**
Chairs: C. Flamant, N. Kalthoff, E. Morin

Wednesday 23 September

- 09:30-11:00
Pelagos **W1.3 - 5-year science outlook: air-sea coupling from an ocean process perspective**
Chairs: H. Giordani, P. Testor, M.N. Bouin, C. Lebeaupin Brossier
- 12:15-13:00
Thalatta2 **W2.2 - Regional climate modelling: heavy precipitation at climate scale**
Chairs: E. Coppola, S. Anquetin
- 12:00-13:00
Pelagos **W2.3 - 5-year science outlook: air-sea coupling and influences on atmospheric processes**
Chairs: M.N. Bouin, C. Lebeaupin-Brossier, P. Di Girolamo, C. Flamant, N. Kalthoff
- 15:45-16:30
Thalatta2 **W3.2 - Regional climate modelling, air-sea coupling, dense water formation: air-sea fluxes and ocean circulation**
Chair: G. Sannino
- 15:30-16:30
Pelagos **W3.3 - 5-year science outlook: vulnerabilities**
Chairs: C. Llasat, O. Petrucci, I. Ruin

Thursday 24 September

- 10:00-10:30
Thalatta1 **TH1.1 - Regional climate modelling: fully-coupled regional climate system models in Med-CORDEX**
Chair: B. Ahrens
- 09:00-10:30
Pelagos **TH1.3 - 5-year science outlook: flash-floods and vulnerabilities**
Chairs: I. Braud, C. Llasat, O. Petrucci
- 12:00-13:00
Thalatta1 **TH2.1 - Regional climate modelling: ENVIMED MaHb project**
Chair: K. von Schuckmann

- 11:00-13:00
Thalatta2 **TH2.2 - 5-year science outlook: integrated forecasting of heavy precipitation, flash-floods and impacts**
Chairs: S. Anquetin, I. Braud, N. Fourrié, O. Payrastre, O. Petrucci, I. Ruin
- 15:30-16:45
Thalatta1 **TH3.1 - Regional climate modelling, heavy precipitation, flash-floods, droughts: climate change impacts on the Mediterranean**
Chairs: E. Coppola, Y. Trambly
- 17:30-19:00
Thalatta1 **TH4.1 - Regional climate modelling (meeting): working groups on preparing Med-CORDEX-2**
- 17:30-19:00
Thalatta2 **TH4.2 - 5-year science outlook: heavy precipitation systems and storm environment**
Chairs: S. Davolio, P. Di Girolamo, C. Flamant, S. Khodayar
- 18:00-19:00
Pelagos **TH4.3 - 5-year science outlook: lightning**
Chairs: S. Coquillat, K. Lagouvardos

Friday 25 September

- 10:00-10:45
Thalatta1 **F1.1 - 5-year science outlook: data assimilation and ensemble prediction systems**
Chairs: N. Fourrié, J. Garcia-Moya, Y. Michel, O. Nuissier
- 09:40-10:45
Thalatta2 **F1.2 - 5-year science outlook: droughts and water resources**
Chairs: J. Polcher, P. Quintana-Segui
- 09:00-10:45
Pelagos **F1.3 - Side-meeting: FLIRE project**
Chair: V. Kotroni
- 11:15-13:00
Thalatta1 **F2.1 - Side-meeting: IODA-MED final meeting**
Chair: E. Richard
- 11:15-13:00
Thalatta2 **F2.2 - Regional climate modelling, Med-CORDEX-2: Preparing Med-CORDEX-2**
Chair: S. Somot
- 11:15-13:00
Pelagos **F2.3 - Side-meeting: FLIRE project**
Chair: V. Kotroni