



L'ARTICO VISTO DA NY-ÅLESUND

Risultati delle ricerche, nuove proposte e visioni d'insieme

18-19 marzo 2019

Aula Convegni, CNR Sede Centrale
P.le Aldo Moro, 7 - Roma



Lunedì 18

10:00 Registrazione

10:45 Apertura dei lavori e saluti

11:00 La ricerca alle Svalbard: la Stazione Artica Dirigibile Italia (A. Viola)

11:15 Artico 2018, l'interesse dei media (M. Ferrazzoli)

COMUNICAZIONI ORALI

11:30 – 13:30 **Oceanografia e mare** (Chair: T. Tesi)

- S. Aliani *et al.*, Italian Marine Arctic Experimental Infrastructure in Ny-Ålesund
- G. Buscaino *et al.*, Passive acoustic monitoring of the Kongsfjorden
- L. Langone *et al.*, Multi-year particle fluxes in Kongsfjorden, Svalbard
- S. Aliani *et al.*, Ocean Heat content in Kongsfjorden, Svalbard
- N. Ademollo *et al.*, Disentangle local and remote contamination in fjord ecosystem of the high Arctic
- F. Ardini *et al.*, Trace elements in the Kongsfjorden: presence, sources and bioavailability
- M. Azzaro *et al.*, Microbiological research in Kongsfjorden
- L. Ghigliotti *et al.*, The Arctic marine fish fauna in the Kongsfjorden

13:30-14:30 Pausa pranzo

14:30 – 16:30 **Atmosfera** (Chair: A. Viola)

- M. Mazzola *et al.*, Atmospheric Observations at the Amundsen-Nobile Climate Change Tower: climatology and processes
- M. Giordano *et al.*, Fiber OPTic thermOhygrometers for AdmundseN-Nobile Climate Change Tower (CCT)
- D. Cappelletti *et al.*, Spatial distribution of aerosol properties in the lower troposphere upon Ny-Ålesund
- E. Barbaro *et al.*, Chemical composition of Arctic aerosol: water soluble organic compounds, trace and rare earth elements
- R. Traversi *et al.*, Aerosol Biogeochemical cycles, Sources and Transport processes in the climate sensitive ArCTic
- M. Malandrino *et al.*, Elemental composition and isotopes of lead in atmospheric particulate matter collected in Ny-Ålesund
- V. Vitale *et al.*, Monitoring of surface solar UV irradiance and ozone column at Svalbard
- S. Massetti *et al.*, Study of Northern Lights at high latitudes. Space Weather and Sun-Earth correlations

16:30 – 17:00 Pausa caffè



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17:00 – 18:15 **Innovazione tecnologica e scientifica** (Chair: A. Iadanza)

- C. Musacchio *et al.*, Reassessing air temperature profiles at the Climate change Tower by on site calibrations
- G. Bruzzone *et al.*, Autonomous marine and aerial vehicles for carrying out scientific surveys near Arctic tidewater glaciers
- A. Merlone *et al.*, The Global Cryosphere Watch prescriptions and guidelines on measurement traceability and related WMO initiatives
- S. Masi e P. De Bernardis, Stratospheric Balloons from Svalbard Islands
- L. Spogli (De Franceschi *et al.*), Monitoring the ionospheric irregularities through GNSS signals: the ISACCO and GENIUS projects

SESSIONE POSTER

18:30 – 20:00 Poster e rinfresco

Martedì 19

COMUNICAZIONI ORALI

9:00 – 10:15 **Criosfera** (Chair: A. Spolaor)

- M. Doveri *et al.*, Isotopic signatures, physical-chemical features and flow rates of glacial drainages in the Ny-Ålesund area, Svalbard
- M. Guglielmin *et al.*, Permafrost, active layer thickness and related morphology changes monitoring
- R. Salvatori *et al.*, Remote e Proximal sensing per lo studio delle coperture nevose
- R. Salzano *et al.*, Exchange processes at the air-snow interface
- A. Spolaor *et al.*, Chemical fingerprints in Svalbard snow and ice to understand the changes occurring in Arctic

10:15 – 10:45 Pausa caffè

10:45 – 13:00 **Ecosistemi terrestri e suolo** (Chair: A. Augusti)

- L. D'Acqui *et al.*, From Ice To Soil
- I. Baneschi *et al.*, CZO@Bayelva: Observing Earth Critical Zone processes in the Bayelva basin
- E. Miccadei *et al.*, Geomorphological Mapping In The Kongsfjorden Area
- V. Pasquali, Biological rhythms in polar animals
- E. Calizza *et al.*, Nutrient inputs and food webs in high-Arctic lakes
- N. Cannone *et al.*, Effects of abiotic and biotic factors on CO₂ land-atmosphere fluxes in the High Arctic



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- *F. Ferlazzo et al.*, Biological rhythms and decision-making in high arctic residents during summer and winter
- *N. Cannone*, Climate warming impacts on Arctic vegetation
- *A. Augusti et al.*, The Contribution of Tundra Ecosystem to Carbon Fluxes

13:00 - 14:00 Pausa pranzo

14:00 - 14:15 Arctic: last voyage around the ice kingdom (*S. Valentino*)

14:15 - 14:30 Programma di Ricerche in Artico (* *C. Robustelli*)

14:30 - 15:00 Sviluppi e prospettive della ricerca Italiana alle Svalbard (*A. Provenzale*)

15:00 -16:30 Discussione

16:30 Chiusura dei lavori

* *Min. Plen. Carmine Robustelli*
Inviato speciale per l'Artico

Ministero degli Affari Esteri e della Cooperazione Internazionale (MAECI)



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Sessione Poster

Oceanografia e mare

1. V. Iannilli *et al.*, First evidence of microplastics ingestion in benthic amphipods from Svalbard
2. R. Grammauta *et al.*, Real-time acoustic monitoring system in Ny-Ålesund
3. G. Alonge *et al.*, A new methodology for the study of ice calving events from underwater acoustic data
4. M. Lelli *et al.*, AR-DIS-CO₂: Arctic Dissolved CO₂ project
5. G. Buscaino *et al.*, Seasonal distribution of vocalizations and analysis of some acoustic parameters of haddock fish *Melanogrammus aeglefinus* in Kongsfjorden
6. C. Cantoni *et al.*, Glacial drivers of marine biogeochemistry in an Arctic fjord: the Kongsfjorden case study
7. A. Bergamasco *et al.*, The Northern Ocean Biosphere Ice Land Ecosystem model (NOBILE model): Development of an integrated high-resolution modelling system for an Arctic Fjord (Kongsfjorden, Svalbard)
8. L. Langone *et al.*, Particulate organic carbon fluxes off Storfjorden
9. S. Miserocchi *et al.*, Modern sediment distribution and composition in Kongsfjorden, Svalbard
10. T. Tesi *et al.*, Paleo climate reconstruction in Kongsfjorden over the last 1k years: preliminary results of C3 project
11. E. Papale *et al.*, Detection of the acoustic presence of beluga (*Delphinapterus leucas*) in the Kongsfjorden

Atmosfera

12. F. Dallo *et al.*, Laboratory calibration and field assessment of low-cost electrochemical Ozone sensors in Alpine and Arctic environments
13. S. Gilardoni *et al.*, Short climatology of Brown Carbon in Ny-Ålesund
14. D. Cava *et al.*, The highly stable boundary layer as a driver of atmospheric dynamics and thermodynamics at high latitudes
15. M. Rinaldi *et al.*, Spring and Summer-time INP Observations at Ny-Ålesund by DFPC
16. L. Caiazzo *et al.*, Biogenic Aerosol, oceanic Primary production and Nucleation Events in the Arctic – BioAPNEA
17. F. Carotenuto *et al.*, Application of Low-Cost Sensors in Extreme Environments: One Year of Measurements
18. L. Di Liberto *et al.*, Lidar measurement in the arctic Planetary Boundary Layer
19. M. Feltracco *et al.*, Free and combined L- and D-amino acids in Arctic aerosol
20. M. Mazzola *et al.*, Moon-Photometric Observations during the Polar Night
21. A. Cecinato *et al.*, Organic pollutant in the Ny-Ålesund's atmosphere

Innovazione tecnologica e scientifica

22. C. Elefante (A. Viola *et al.*), The Italian Arctic Data Center (IADC): an integrated interoperable digital system for arctic data management
23. V. Romano *et al.*, NARWHALS, an ESA funded project to support the maritime navigation in Arctic
- 24-26. G. Bruzzone *et al.*, Autonomous marine and aerial vehicles for carrying out scientific surveys near Arctic tidewater glaciers

Criosfera

27. E. Barbaro *et al.*, Free amino acids in the Arctic snow and ice core samples: Potential markers for paleoclimatic studies
28. E. Barbaro *et al.*, Change in chemical composition of the annual snow layer: the effects of rain event and melting processes
29. A. Spolaor *et al.*, Degradation of the climate signal preserved in Svalbard ice archive
30. A. Spolaor *et al.*, Diurnal cycle of iodine and mercury concentrations in Svalbard surface snow
31. F. Burgay *et al.*, Iron species in ice cores. First results and new directions of research
32. M. Vecchiato *et al.*, Local and long-range sources of fragrances in snow and seawater of Ny-Ålesund

Ecosistemi terrestri e suolo

33. G. Giacalone *et al.*, Extraction and identification of biological patterns from multibeam acoustic data acquired in Kongsfjorden