



EUROPEAN COOPERATION
IN SCIENCE AND TECHNOLOGY



eLECTRONET

COST Action CA15211

Action Title: Atmospheric Electricity Network: coupling with the Earth System, climate and biological systems

Timetable of WG meetings, Workshop, and 5th MC meeting
23-25 September 2019, Sopron

Note: In case of many authors, the presenting one is underlined

*Note: Time slots addressing **DELIVERABLES** of the current Grant Period (1.5.2019-30.4.2020) are in red*

*Note: **DISCUSSION** time slots (in green) should not be understood as confined to the talk above them, but may and will be moved within the given **TIME BLOCK** according to interest*

Monday 23 September 2019

TIME BLOCK 1

Workshop/Joint Plenary Session (WG1, WG2, WG3, WG4, WG5)

09:00-09:30 Konstantinos Kourtidis, (Chair, Greece): Overview of the Action, introduction of new participants, the Action DATASPACE.

9:30-9:45 Konstantinos Kourtidis (Greece): Some ideas on the apparent negative charge of the Earth's surface and the carriers of this charge from the Earth's surface to the atmosphere WG1

9:45-10:00 Michael Rycroft (UK): GEC basics and Earth's negative charge

10:00-10:20 Bogumila Myslek-Laurikainen, Marek Kubicki, Anna Odzimek (Poland): A general view of natural and anthropogenic ionizing phenomena at ground level air WG2/WG3

10:20-10:30 Discussion

10:30-10:45 Colin Price (Israel): New idea regarding renewal energy, based on cloud electrification WG3/WG1

10:45-11:00 Discussion

11:00-11:30 Coffee break



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11:30-11:45 Lluis M. Mir (France), A. Muscat, I. Leray and T. García-Sánchez: Atmospheric electricity and other “natural” voltage gradient sources: the case of pyroelectricity WG4

11:45-12:00 Karen Aplin (UK): Miniature ionisation sensor with energy discrimination WG5

END WORKSHOP

Working Group meetings

Note: These WG meetings will be open to all, to facilitate cross-discipline exchange and integration. They will also address progress and deliverables, outlook and goals for the next Grant Period, completed STSMs will present their reports, etc.

WG1, WG2, WG3

12:00-12:15 Dejan Vincovic (Croatia): On electrophonic sounds from meteors WG1

12:15-12:30 Stergios Misios (Greece): Solar influences on climate WG3

12:30-12:45 Vladimir Srećković (Serbia): Influence of strong solar X-ray flares and its negative effects on Earth WG2

12:45-13:00 Discussion

END TIME BLOCK 1

13:00-13:30 *Lunch break*

TIME BLOCK 2

WG1, WG2, WG3 (cont.)

13:30-13:45 Anastassios Tsonis (INVITED SPEAKER, U.S.A.): Dynamical evidence for causality between galactic cosmic rays and interannual variation in global temperature WG1/WG2/WG3

13:45-14:00 Aleksandra Nina (Serbia): Low ionospheric disturbances: modelling and connection with different phenomena WG2/WG3

14:00-14:15 Mirela Voiculescu (Romania): Review of cloud responses to solar triggers WG3

14:15-14:30 Discussion

14:30-14:45 Susana Barbosa (Portugal): Study of ionisation in the marine boundary layer WG3

Chaired by Eugene Rosanov (WG3 Leader, Switzerland):

14:45-15:15 WG3 Progress and outlook towards the deliverable of WG3 during this Grant period: AEF influence on atmospheric ionisation and climatic relevance (D3.2 Studies-Reports@m36).

15:15-15:30 Discussion



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15:30-16:00 *Coffee break*

16:00-16:15 Jon Karapetyan (Armenia): Main activities of the Inst. of Geophysics and Engineering Seismology, prospects and the link to CA15211 WG1/WG2

16:15-16:30 Valerio Tramutoli (Italy): Tropospheric and ionospheric anomalies induced by volcanic and Saharan dust events as part of geosphere interaction phenomena WG1

16:30-16:45 Pier Francesco Biagi (Italy): The INFREP Radio network for studying earthquake precursors WG1/WG2

16:45-17:00 *Discussion*

17:00-17:40 *Chaired by Snezana Dragovic (WG2 Leader, Serbia):*

a) Snezana Dragovic: Submissions of Papers on airborne radioactivity and global electric circuit by WG2 in the Special Issue *Atmospheric Electricity of Science of the Total Environment*

b) Christina Oikonomou (Cyprus): Progress on the common study/paper(s) from the common project on earthquake precursor signals in atmospheric electricity data

c) Snezana Dragovic: Progress toward the deliverable of WG2 during this Grant Period: D2.4 Cross disciplinary studies-reports of AEF, earthquakes, radon etc @m36

17:40-18:30 *Discussion on work and deliverables of WG2 and WG3*

END TIME BLOCK 2

18:30-19:30 *Posters (all WGs). During this time, we might have a look at posters and have lay discussions in groups. Ice breaker with coffee and tea.*

19:30 *End of Day 1*

Tuesday 24 September 2019

TIME BLOCK 3

Working Group meetings

WG1, WG2

09:00-09:15 Yaroslav Vyklyuk (Ukraine): Data Analysis and Modeling of crisis and Socio-Economic Systems WG1

WG3

09:15-09:30 Yoav Yair, Barry Lynn, Mordechai Yaffe and Yanai Namia-Cohen (Israel): Is there a weekend effect in lightning activity over the Tel-Aviv metropolitan area? WG3

09:30-09:45 *Discussion*

WG4

09:45-10:00: Colin Price (Israel): Lightning, Evolution and Biology WG4

10:00-10:15 Kuang Liang Koh (UK): Animals, plants and local atmospheric electricity WG4



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10:15-10:30 Discussion

10:30-11:00 *Coffee break*

11:00-11:15: Nils Risgaard-Petersen (Denmark): Cable bacteria - a new paradigm in microbiology WG4

11:15-11:30 Discussion

11:30-11:45 Pablo Fernandez de Arroyabe (Spain), J. Fornieles-Callejon; A. Santurtún; L. Szangolies; Reik V. Donner (Germany): Schumann Resonances and cardiovascular hospital admissions in Granada WG4

11:45-13:00 Pablo Arroyabe (WG4 Leader, Spain): Progress towards the deliverables of WG4 during this Grant Period: New research directions on AEF effects on biological systems (D4.3 Research-Reports@m36, D4.4 AEF biometeorology Handbook@m36, update of D4.1 Handbook on effects).

END TIME BLOCK 3

13:00-14:00 *Lunch break*

TIME BLOCK 4

14:00-14:15 Discussion

WG5

14:15-14:30 Victor Lorenzo (Spain): Sensors for atmospheric electricity WG5

14:30-14:45 Stefan Chindea (UK): Electric field sensors for use on unmanned aircraft WG5

14:45-15:00 Konstantinos Kourtidis (Greece): Requirements for a satellite product for atmospheric electricity

15:00-15:15 Discussion

15:15-15:30 Konstantinos Kourtidis (Greece): First results from a novel sensor for atmospheric electricity

15:30-16:00 *Coffee break*

16:00-17:00: Keri Nicoll (WG5 Leader, UK): Progress and outlook towards the deliverables of WG5 during this Grant period (D5.5 Satellite product development@m36, D5.3 sensor development @m42)

17:00-18:30 WG meetings (each WG determines its own WG meeting programme)

END TIME BLOCK 4

17:00-18:30 Posters (all WGs). During this time, we might have a look at posters and have lay discussions and interaction in groups.

18:30 End of Day 2

19:30 ElectroNet Dinner



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Wednesday 25 September 2019

TIME BLOCK 5

9:00-11:00 **WG meetings and round table discussions (WG1, WG2, WG3, WG4, WG5)**

Jozsef Bor (Hungary): Status of the thunderday related research plan

Discussion on:

Action outlook 1: Inclusion of atmospheric electricity into climate and weather models – can and should Action CA15211 contact the ECMWF?

Action outlook 2: Continuation of the network through ISSI (International Space Science Institute, Bern) funding (briefing by Konstantinos Kourtidis)

Action outlook 3: Other ways of continuing the Action's work

11:00-13:00 WG Leaders' reports from WG meetings

END WG Meetings

END TIME BLOCK 5

13:00-14:00 Lunch break

TIME BLOCK 6

MC5 Meeting

14:00-15:30 5th Management Committee meeting. MC5 agenda will be circulated separately to MC members/substitutes/observers)

15:30-16:00 Coffee break

16:00-19:00 MC5 meeting (cont.)

END TIME BLOCK 6

19:00 End of Day 3, end of meeting, ADJOURN

Note: Presentations should use the Action template (available at the NEWS section of the Action website, at <http://www.atmospheric-electricity-net.eu/node/87>).

Note: Posters should be around 40 cm (width) X 60 cm (height) and have the COST, EU and Action logos (available at <http://www.atmospheric-electricity-net.eu/node/87>).



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Poster presentations (posters marked with * are reports from STSM missions):

WG2:

Jesus Fornieles: Physical aspects concerning to Schumann Resonance measurement in Granada

WG3:

James Matthews: Measurements of atmospheric PG in Bangkok

*Kseniia Golubenko (results of two STSMs to Switzerland, 17-23.2.2019 and 18-30.3.2019): GEC representation in the chemistry-climate model SOCOL

*Ilya Usoskin (results of STSM to Switzerland, 17-23.2.2019): Assessment of the effect of a potential 'worst-case scenario' on atmospheric electricity

Arsenyi Karagodin: Ionospheric potential simulation in the chemistry-climate model SOCOL

Irina Mironova: Ionization by energetic electrons in the polar atmosphere

WG4:

Yoav Yair, Yifat Yair, B. Rubin, R. Confino-Cohen, Y. Rosman, M. Rottem and E. Shachar: First reported case of Thunderstorm Asthma in Israel WG4

*Pavlos Kassomenos (results of STSM to Spain, 15-19.4.2019): Health Cities, Biometeorological Indexes and respiratory diseases

*Luis Salcines Suarez (results of STSM to Finland, 23-29.4.2019): Methodology of the comparative study of air ions and nanoparticles measurements in different latitudes of the northern hemisphere based on the measurement campaign in the University of Cantabria and work done by the Institute for Atmospheric and Earth Sys...



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