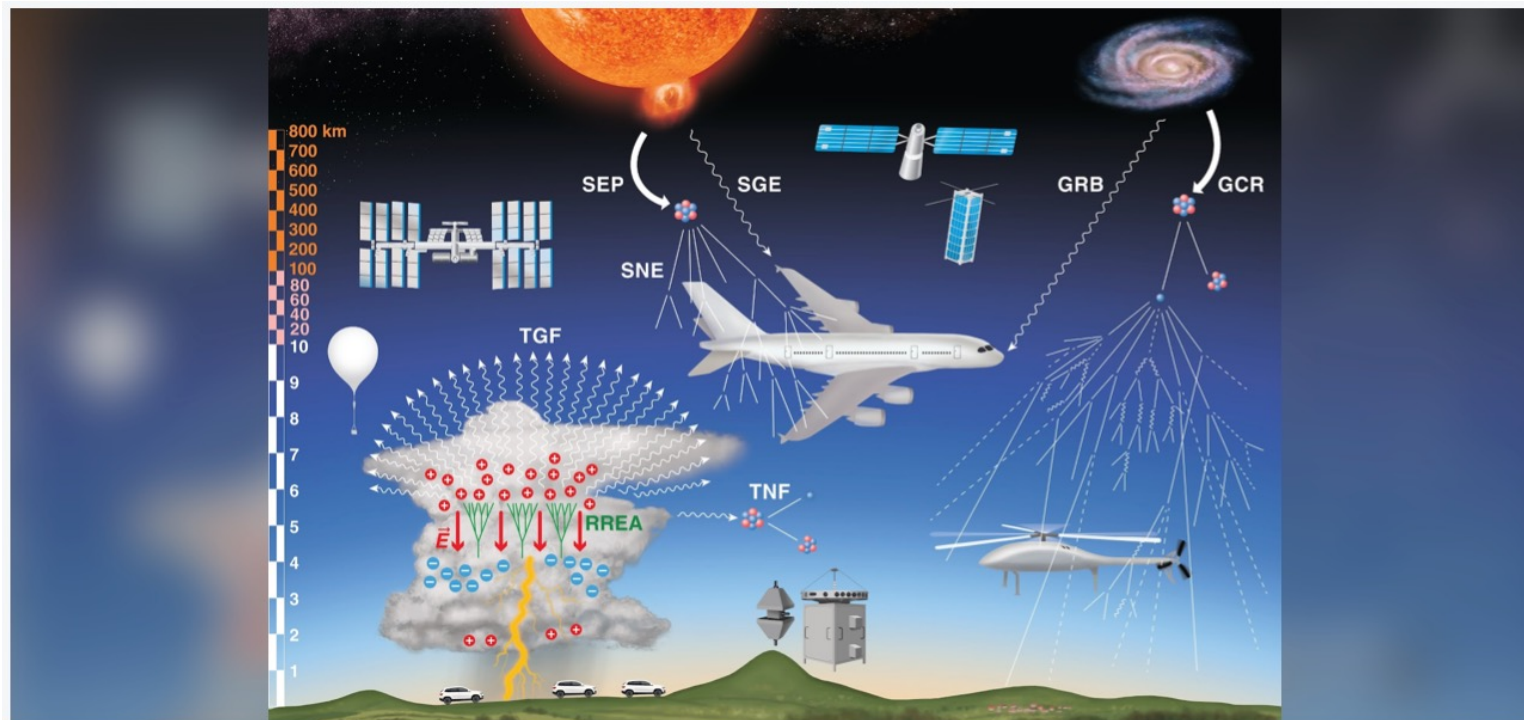




12th EURADOS Webinar



Research Center of Cosmic Rays and Radiation Events in the Atmosphere (CRREAT)



Introduction to the WG11 High Energy radiation fields

EURADOS →

Menu ☰



Chairperson

Marco Caresana

Politecnico di Milano (Italy)

Email: marco.caresana@polimi.it

CV



Secretary

Veronika Olšovcová

ELI Beamlines, Inst. of Physics, CAS

(Czech Republic)

Email: Veronika.Olsovcova@eli-beams.eu



Membership

Working Group 11 has:

- > 37 full members from 10 countries
- > 50 corresponding members from 17 countries.



Motivation

The motivation is to increase the knowledge and expertise regarding field characterisation and dose assessment in various activities where high energy and mixed radiation fields are found, like in medicine, research, civil aviation, and space. In addition, the WG contributes to the development of international standards and recommendations (e.g. ISO, ICRU, ICRP).



WG11 tasks



Task 1 - Comparison of Monte Carlo codes using ICRP 103 conversion factors for Radiation Exposure of Aircraft Crew

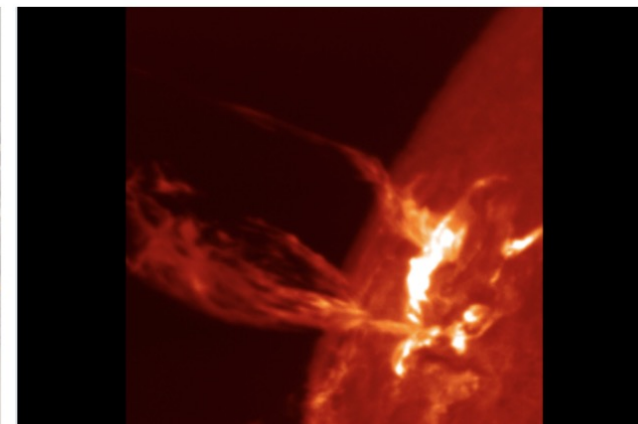
Task Group leader: Marcin Latocha
(Seibersdorf Laboratories, Austria)



Task 2 - Dosimetry in pulsed radiation fields

Task Group leader: Marco Caresana
(POLIMI, Italy)

Study of the response of passive and active detectors at extremely high dose-



Task 3 - Improvement of the models for dose assessment due to solar particle events and validation with experimental data

Task Group leader: Peter Beck
(Seibersdorf Laboratories, Austria)



WG11 tasks



Task 4 - Solar particles events measurements

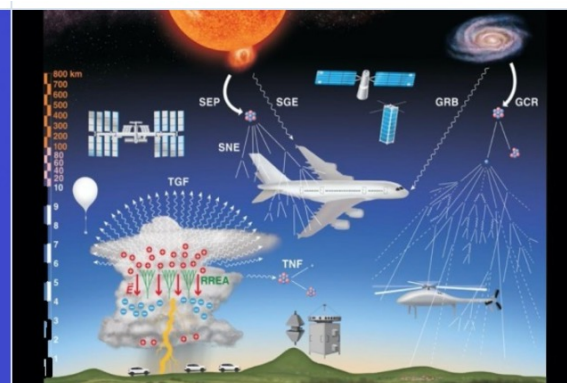
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Task Group leader: Iva Ambrožová
(Nuclear Physics Institute of the Czech Academy of Sciences, Czech Republic)



Task 7 - High energy reference field

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Task Group leader: Eike Hohmann (PSI, Switzerland)

Study of reference radiation fields for



Task 8 - Radiation dose induced by natural electric discharge in the atmosphere

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Task Group leader: Ondrej Ploc (Nuclear Physics Institute of the Czech Academy of Sciences, Czech Republic)

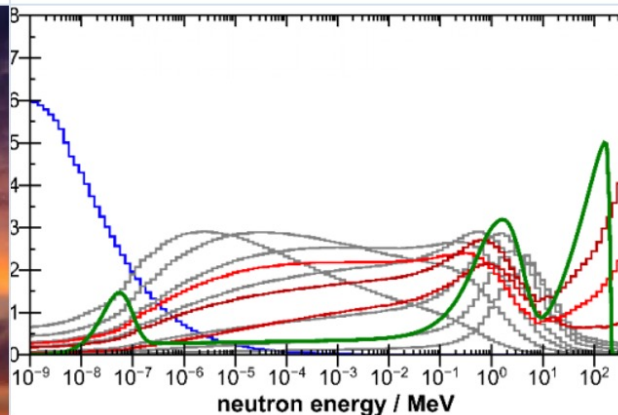


WG11 tasks



Task 10 - Operational Procedure for GLC Management

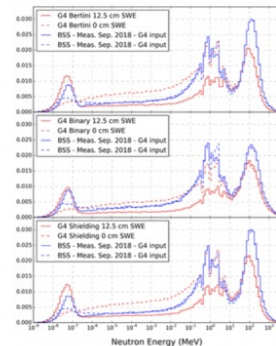
Task Group leader: Peter Beck
(Seibersdorf Laboratories, Austria)



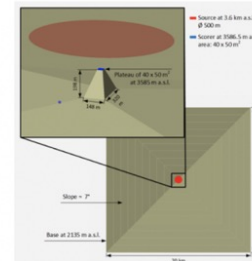
Task 11 - Course on unfolding neutron spectra

Task Group leader: Marcel Reginatto
(PTB, Germany)

Measured & simulated neutron spectra



Geant4 implementation



Task 12 - Benchmark of the MC models used for high energy neutrons

Task Group leader: Vladimir Mares
(HMGU, Germany)



AGENDA

- Agenda**
- M. Caresana: Welcome and introduction of WG11
 - O. Ploc: General notes about CRREAT and radiation dosimetry measurements onboard aircraft
 - I. Ambrožová: Radiation measurements using stratospheric balloons and drones
 - M. Kákona: Thunderstorm chasing using measuring cars equipped with multiple sensors
 - J. Šlegl: Gamma Ray Spectrometry of Thunderstorm Radiation Observatory Network (GASTRON) and Long-term burst events at high mountain observatories
 - M. Sommer: Radiation measurements onboard spacecraft and satellites within the CRREAT project

Q&A after each talk.

Please write your questions in the Q&A chat