
SS1: special session on the
“Safety of Installations submitted to EM threats”

Organized by Dr. Odd Harry Arnesen, FFI, Norway,
as part of the **HIPOW** EU project
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The session is organized by the HIPOW consortium, which consists of 14 European partners. HIPOW is a project in the EU 7th framework program, and the focus is on improving the immunity of Critical Infrastructure against all transient electromagnetic phenomena. This session will cover papers relevant to one or more of the following topics:

- System level effects, or consequences, of EM transients.
- Protective measures on networks or large systems.
- Susceptibilities and hardening of infrastructure components.
- Risk management of EM threats in large systems.
- In situ detection and diagnostics.

Papers both from HIPOW partners and others are welcome.

Paper submission TC: **TC2**: “Applications of Coupling to Structures and Cables”

SS1 authors will have to add the following special mention in the “Comments” section of the paper submission form:

[This paper is intended to be part of the SS1 special session on " Safety of Installations submitted to EM threats "](#).

SS2: special session on the
“Use of Computer Codes in HIRF certification process”

Organized by Dr. Jean-Philippe Parmantier, ONERA, France,
And Dr. Jean-Patrick Moreau, Dassault Aviation, France

as part of the **HIRF-SE** project

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HIRF SE is part of the 7th European Community framework program which gathers 44 European partners with the aim to complete a software framework for prediction of the Electromagnetic environment of Aircraft systems when the Aircraft is impinged by Electromagnetic fields. The final intent is to use this Software during aircraft development and certification phases. The session will collect papers from the HIRF-SE consortium as well as from outside the consortium in order to share experiences and opinions about the use of a numerical approach into a certification process.

Participation of air framers, and certification authorities would be greatly appreciated.

Paper submission TC: **TC7**: “Analytical and Numerical Models and Modelling”

SS2 authors will have to add the following special mention in the “Comments” section of the paper submission form:

This paper is intended to be part of the SS2 special session on "Use of Computer Codes in HIRF certification process".

SS3: special session on the “Lightning Indirect Effects on Aircrafts”

Organized by Dr. Houmam Moussa, HISPANO-SUIZA, France,
as part of the **PREFACE** FUI project

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This session is organized by the PREFACE consortium (PROjet d'Etude Foudre sur Avion Composite plus Electrique) sponsored by the French Ministry of Industry and Local Communities. The session will be dedicated to Indirect Lightning on Aircraft and will mainly cover the following topics:

- Modelling of indirect lightning current redistribution: The modelling will concern conventional 3D modelling (like FDTD) as well as non-conventional methods (PEEC/circuit approach)
- Design of innovative lightning protections including discrete active protection with components such as varistors and passive protection such as shielding efficiency of composite materials.
- Model validation measurements. The session will address how to carry out measurements in order to have a good model validation at system, sub-system and equipment levels.

Papers external to the PREFACE consortium are fully welcome in order to open fruitful discussions on the session topics.

Paper submission TC: **TC6**: “Lightning EM Effects”

SS3 authors will have to add the following special mention in the “Comments” section of the paper submission form:

[This paper is intended to be part of the SS3 special session on "Lightning Indirect Effects on Aircrafts".](#)

SS4: special session on the
“Susceptibility, effects, protection, and test methods for
electronics due to high power EM threats”

Organized by Dr. W. Radasky (Metatech) and Dr. R. Hoad (QinetiQ)

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This session will be focused on susceptibility, effects, protection, and test methods for electronics due to high power EM threats (both IEMI and HEMP). In addition any standardization papers dealing with these aspects are also welcome. In particular papers should deal with:

- Theoretical or experimental evaluations of the susceptibility of commercial electronics to either narrowband and wideband HPEM threats
- Evaluations of protection methods to illustrate their effectiveness
- New test methods that can be used to evaluate the susceptibility/immunity of commercial electronics to HPEM threats
- Preparation or publication of new standards dealing with HPEM protection and/or testing.

Paper submission TC: **TC4: “IEMI Threats, Effects and Protection of Electronics”**

SS4 authors will have to add the following special mention in the “Comments” section of the paper submission form:

This paper is intended to be part of the SS4 special session on "Susceptibility, effects, protection, and test methods for electronics due to high power EM threats".

SS5: special session on the “HPEM detection”

Organized by Dr. Frank Sabath
FrankSabath@bundeswehr.org

This session will be focused on requirements, theoretical descriptions and measurement reports on systems for the detection, classification and identification of radiated high-power electromagnetic (HPEM) environments. In particular papers should deal with:

- Description of requirements and theoretical design considerations
- Theoretical description and experimental evaluation of HPEM detection systems
- Possible detection circuits and field sensor techniques
- Applications of HPEM detection systems

Paper submission TC: **TC3**: “Measurement Techniques”

SS6 authors will have to add the following special mention in the “Comments” section of the paper submission form:

[This paper is intended to be part of the SS5 special session on "HPEM detection".](#)
