

Ute Ebert

**Workshop on TLE's and TGF's,  
topical meeting of E-CANES, ASIM and TARANIS,  
Amsterdam, October 25-27(28), 2010  
(program planning as of August 26)**

A webpage for scientific program, registration, hotel and travel instructions is set up on <http://www.cwi.nl/en/node/2614> and will be updated regularly.

***Please register on this site before August 31.** After that date hotel prizes are likely to increase or hotels to be unavailable, as it is conference season in Amsterdam. For more information, see our webpage.*

Organizational support and meeting rooms will be supplied by CWI, [www.cwi.nl](http://www.cwi.nl), and by secretary Martine, M.Anholt.Gunzeln@cwi.nl.

**Overview scientific program:**

**Mon, Oct. 25**

***Balloon and aircraft experiments related to TLEs and space missions, TGF***  
**Convenors: Christian Hanuise, Nikolai Østgaard, Jean-Baptiste Renard**

**Tue, Oct. 26**

***Observations and ground based facilities***  
**Convenor: Torsten Neubert**

**Wed, Oct. 27**

***Laboratory experiments and modeling of streamers, sprite simulations***  
**Convenors: Ute Ebert, Alejandro Luque, Sander Nijdam, Chao Li**

**Thu, Oct. 28**

**Visit of** the experimental facilities at the departments of Applied Physics and Electric Engineering of **Eindhoven University of Technology** for interested participants.  
(We recommend you to stay in your hotel in Amsterdam and to travel to Eindhoven by direct train within 80 minutes, thus avoiding traffic jams.)

In addition, we suggest to brainstorm about European funding on Monday evening.

We will organize joint dinner locations for every evening from Sunday through Wednesday.  
The conference dinner will be on Tuesday in the inner city.

## Scientific program

**Monday, October 25:**

***Balloon and aircraft experiments related to TLEs and space missions, TGFs***

**Convenors: Christian Hanuise, Nikolai Østgaard, Jean-Baptiste Renard**

1. Nikolai Østgaard, Jean-Louis Pinçon: ASIM and TARANIS capability for detection of TGF
2. J. Fishman: Latest space-born observations of TGFs from Fermi-GBM
3. M. Marisaldi: Location of TGFs at high energy: Results from AGILE
4. N. Østgaard: Interest of TGF detection from balloon and aircraft altitudes
5. B. Carlson: Modeling of TGF production and observation
6. C. Li, O. Chanrion: discussion of the Dutch and the Danish simulations of run-away electrons and hard radiation from streamers and sprites (15+5 minutes for each of them)
7. H. Christian: aircraft / balloon observations above thunderclouds
8. M. Cherry: Ground-based array and balloon experiment
9. E. Seran and M. Godefroy: EF-ATLEC balloon multi-instruments experiment: electric field and optical observations in stratosphere
10. COBRAT scientific objectives (Jean-Baptiste)
11. Discussion :
  - Definition of COBRAT payload
  - Associated ground-based observations(participation of S. Soula, E. Seran, M. Godefroy and others)

**Tuesday, October 26:**

***Observations and ground based facilities***

**Convenor: Torsten Neubert**

**SCIENCE**

1. Oscar van der Velde: *EuroSprite* 2009-2010 instruments overview
2. Enrico Arnone: *EuroSprite* 2009-2010 observations overview
3. Martin Fullekrug
4. Oscar van der Velde: High-Speed Imaging of lightning
5. Yoav Yair: Ground-based measurements in Eastern Mediterranean winter thunderstorms
6. Samir Nait Amor: The AWESOME network for the ASIM and TARANIS missions
7. Torsten Neubert: The Italian GJ - The electric potential distribution
8. Serge Soula: Gigantic Jets observed over an isolated tropical storm in La Réunion region

**NEW DIRECTIONS AND NEW OPPORTUNITIES**

1. Plans for new instrumentation and collaborations
  - a. Oscar and Francisco: Spain/South America
  - b. Yoav Yair: Israel
  - c. Olivier: Denmark/India/Cuba
  - d. Serge/Île de la Réunion

**PROGRAMMATICS**

1. Identification of topics for future joint publications
  - a. All
2. Agree on common event format
  - a. All
3. Update and use of electricstorms.net
  - a. All
4. Communication and coordination of campaigns
  - a. All
5. Access and use of data policy
  - a. All

**Wednesday, October 27**

***Laboratory experiments and modeling of streamers, sprite simulations***

**Convenors: Ute Ebert, Alejandro Luque, Sander Nijdam, Chao Li**

All talks are 15 minutes + 5 min discussion to keep time for exchange and collaboration. 5 minutes presentation and 15 minutes discussion are welcome as well, and everything inbetween!

**1. Streamer experiments (9:30-10:30):**

Sander Nijdam, streamer experiments  
Daria Dubrovin, sprites on other planets and related experiments  
Guus Pemen, corona streamers, radical and UV-production and applications

**2. Streamer simulations (11:00-12:20):**

Sasa Dujko, Theoretical foundations, numerical techniques and applications of transport coefficients in modeling of streamers and sprites.  
Gideon Wormeester, streamer modeling in different gases  
Anne Bourdon, streamer (and leader?) modeling  
Ute Ebert, Electrodynamic characterization of streamers and streamer tree models

**3. Sprite simulations (14:00-15:00):**

Alejandro Luque, Models of sprites and halos with a gradient of air density  
Ningyu Liu, Sprite modeling  
Francisco Gordillo-Vazquez, Modeling of N<sub>2</sub>B and N<sub>2</sub>C vibrational distribution functions in sprites at different altitudes and temporal resolutions

**4. Hard radiation from streamers and leaders and TGF – experiments (from 15:30-16:10):**

Vuong Nguyen, hard radiation from streamer-leader discharges in the lab  
Carl Budtz-Jørgensen, ASIM-CZT detector measurements of hard radiation from TU Eindhoven discharges. Preliminary results and plans.

Not yet placed – would this fit better into Monday or Tuesday?:

Hans Nielsen, Aircraft observations of halos and sprites,  
high resolution imaging of sprite streamer heads

Steve Cummer (???), Observation and modeling of halos and sprites

**Suggestions about up-coming and missing subjects and speakers are welcome!  
But under consideration of the workshop format!**