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Abstract

Planetary Space weather is a relatively new discipline, still largely unknown to the general public despite its growing importance in our daily lives. One of the most spectacular effects of this discipline is the existence of polar lights.

A century ago, the Norwegian physicist Kristian Birkeland, one of the founders of modern space science, demonstrated the mechanism of aurora formation with experience, the "Terrella". He suspended a magnetized sphere in a vacuum chamber, and to shot electricity on it.

Recently, a modernized version of the Terrella was designed at the Institute of Planetology and Astrophysics of Grenoble, the "Planeterrella". This one allows visualizing the auroras, but still many other phenomena which occur in the space environment of the Earth and the planets. Although the Planeterrella was originally thought of as a local project, it has developed into an international scientific mediation experience. Its success is due to two factors, (i) it is not covered by a patent, and its plans are given free of charge to any public service and (ii) the project is promoted by an enthusiastic scientific community, using its own networks and completely escaping any external pressure.

Today, there are 32 planeterrellas in the world, about 20 are under construction or planned, including two in the Maghreb, one in Brazil, one in South Africa, far away from Europe. In June 2016, several hundreds of thousands of people around the world had seen auroras thanks to Planeterrella, mainly in Europe (France, Great Britain, Switzerland, Belgium, Italy, Spain, Scotland) and in the USA, and were able to learn about planetary space weather. The Planeterrella is also used today for high school and

student projects for artistic purposes (music, storytelling, painting).

In this conference, I will discuss how the Planeterrella has developed to become an international phenomenon of scientific mediation. I will also examine some lessons learned from his model: patent or gentleman agreement, big or small, automated or used by hand, possible sources of financing ...

<http://planeterrella.obs.ujf-grenoble.fr>

References

[1] J. Lilensten, Mathieu Barthélemy, Cyril Simon, Philippe Jeanjacquot and Guillaume Gronoff , The Planeterrella, a pedagogic experiment in planetology and plasma physics, *Acta Geophysica*, vol. **57**, no. 1, pp. 220-2352008, DOI: 10.2478/s11600-008-0079-x, 220-235, 2009.

[2] J. Lilensten, G. Provan, S. Grimald, A. Brekke, E. Flückiger, P. Vanlommel, C. Simon Wedlund, M. Barthélémy, and P. Garnier, The Planeterrella experiment: from individual initiative to Networking, *J. Space Weather Space Clim.*, **3**, A07, DOI: 10.1051/swsc/2013029, 2013.

[3] J. Lilensten, C. Briand, B. Cecconi, L. Lamy, M. Barthélémy, The Planeterrella : a simulator of planetary aurorae Communicating Astronomy to the Public (CAP) journal, 16, 18-21,

<http://www.capjournal.org/issues/16/index.php>, 2014.