Curriculum Vitae

Pr. Pascal ORTEGA

54 ans, marié, deux enfants

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Fonctions et diplômes

- 2008 - 2017 : Professeur en Physique C1 (section 37 et 63) – UPF
- 2007 - Habilitation à Diriger des Recherches - UPF
- 1994 - 2008 : Maitre de conférences - UPF
- 1992 - 1994 : Chercheur contractuel – College of Cardiff (UK)
- 1989 - 1992 : Doctorant - Université de Pau et des Pays de l'Adour

Principales responsabilités administratives

- 2013 - présent : Vice-président du conseil scientifique – UPF
- 2013 - présent : Vice-président de la grappe d'entreprise Tahiti Fa'ahotu
- 2014 - présent : directeur adjoint du GOPS (Grand Observatoire de l'environnement et de la biodiversité du Pacifique Sud)
- 2010-2013 : Directeur du département Sciences, Technologies et Santé de l'UPF

Domaines de recherche

- Electricité Atmosphérique
- Climatologie du Pacifique
- Micro réseaux intelligents

Domaines d'enseignement

- Électromagnétique – Optique – Physique appliquée

Programmes de recherche récents ou en cours

- COBIOPOL – Construction Bioclimatique en PF (MOM, ADEME, CCISM, UPF)
- PLUVAR – Rainfall variability over Pacific Islands (Université d'Auckland, NIWA, IRD, UPS, Météo France)
- REFEPICS – Micro Smart Grid (UPS, UPF, UNC)
- GEMIT – Master Gestion des Energies en Milieu Insulaire et Tropical
- MIREIL – Micro réseaux électriques en milieu insulaire (Service de l'Energie)

Publications

- **Articles de revues internationales à comité de lecture**

P. Ortega, P. Domens, A, Gibert : Predictive modelling of leader propagation under standard and oscillatory waveshapes, Journal of Phys.D. Appt. Phys, 27 pp1-9, (1994)

P. Ortega, P. Domens, A, Gibert :, B. Hutzler, G. Riquel : Performance of a 17m air rod-plane gap under negative switching impulse, Journal of Phys.D. Appl. Phys, 27 pp2379-23 87, (1995).

T. Reess, **P. Ortega,** A. Gibert, P. Domens, and P. Pignolet :An experimental study of negative discharge in a 1.3 m point-plane air gap : the function of the space stem in the propagation mechanism; J. Phys. D: Appl. Phys. 28, pp2306-2313, (1995)

D. Beysens, M. Muselli, I. Milimouk, C. Ohayon, S. Berkowicz, E. Soyeux, **P. Ortega**: Passive radiative condensers to extract water from air, Croatian Meteorological Journal, Vol. 39, pp 59-69, (2004)

P. Ortega, F. Rühling, F. Heilbronner, R. R. Díaz and M. Rodière: Charge-voltage relationship of the first impulse corona in long airgaps ; Journal of Phys.D. Appl. Phys, 38, pp2215-2226, (2005)

D. Beysens, M. Muselli, I. Milimouk, C. Ohayon, S. Berkowicz, E. Soyeux, P. Ortega: Application of passive radiative cooling for dew condensation; Energy, Vol. 31, pp1967-1979, (2006)

P. Ortega, T. Guignes: Lightning activity analyses with respect to the SPCZ location, Geophys. Res. Lett., 34, L11807, doi:10.1029/2007GL029730, (2007)

P. Ortega : A Three Magnetic Direction Finder Network for a local warning device, Journal of Lightning Research, Vol.2, pp 18-27 (2007)

P. Ortega, R.T. Waters, A. Haddad, R. Hameed, T. Davies: Impulse Breakdown Voltages of Air Gaps: a New Approach To Atmospheric Correction Factors, IEEE Transactions on Dielectrics and Electrical Insulation, Vol. 14, No.6; December (2007)

P.Ortega, R.R.Diaz, F.Rühling and F. Heilbronner: Humidity effect on the inception of the first positive corona, J. Phys. D: Appl. Phys. 40 7000-7007 (2007)

O. Clus, **P. Ortega**, M. Muselli, I. Milimouk, D. Beysens: Study of dew water collection in humis tropical islands, Journal of Hydrology, 361, pp159-171, (2008)

R. Dowden, R. Holzworth, C. J Rodger, J. Lichtenberger, A. R. Jacobson, E. Lay, J. Brundell, T. Lyons, S. O'Keefe, Z. Kawasaki, C. Price, V. M. Martins Prior, **P. Ortega**, J. Weinman, Y. Mikhailov, R. Woodman, X. Qie, G. Burns, A. Collier, O.r Pinto Junior, R. Diaz, C. Adamo, E. R. Williams, S. Kumar, G. Raga, J. M. Rosado, E. E. Avila, M. A. C., T. Ulich, P. Gorham, N. Hannekum, T. Osipowicz, T. Whitaker, Y. Zhao: World-Wide Lightning Location Using VLF Propagation in the Earth-Ionosphere Waveguide, IEEE Antennas and Propagation Magazine, Vol. 50, n°5, pp 40-50, 2008.

P. Ortega: Generalization of the Quadratic Charge-voltage relation of the impulse corona in air, IEEE Trans. on Dielectric and Electrical Insulation, Vol. 17, No1; Feb. (2010)

A. Fadil, L. Sichoix, J.P. Barriot, **P. Ortega** and P. Willis **:** Evidence for a slow subsidence of the Tahiti Island from GPS, DORIS, and combined satellite altimetry and tide gauge sea level records, C. R. Geoscience, doi:10.1016/j.crte.2011.02.002, (2011) :

E. Defer, J.-P. Pinty, S. Coquillat, J.-M. Martin, S. Prieur, S. Soula, E. Richard, W. Rison, P. Krehbiel, R. Thomas, D. Rodeheffer, C. Vergeiner, F. Malaterre, S. Pedeboy, W. Schulz, T. Farges, L.-J. Gallin, **P. Ortega**, J.-F. Ribaud, G. Anderson, H.-D. Betz, B. Meneux, V. Kotroni, K. Lagouvardos, S. Roos, V. Ducrocq, O. Roussot, L. Labatut, and G. Molinié : An overview of the lightning and atmospheric

electricity observations collected in southern France during the Hydrological cycle in Mediterranean EXperiment (HyMeX), Special Observation Period 1, Atmos. Meas. Tech., 8, 649–669, (2015) :

M. Hopuare, M. Pontaud, J.P. Ceron, **P. Ortega** and V. Laurent **:** Climate change, Interdecadal Pacific Oscillation, El Niño Southern Oscillation, South Pacific Convergence Zone and observed precipitation variability in Tahiti, French Polynesia, Clim Res, Vol 63, pp157-170, doi:10.3354/cr01288, (2015)

M. Hopuare, M. Pontaud, J.P. Céron, M. Déqué, **P. Ortega** : Climate change assessment for a small island: a Tahiti downscaling experiment, Clim Res, Vol 63, pp233-247, doi:10.3354/cr01298, (2015

F. Lucas, **P. Ortega**, M. David, F. Sinama, B. Brangeon, F. Picgirard : A Method to Evaluate Energy Performance of Buildings Cooled by Room Air Conditioners, Energy Procedia, Vol. 75, pp 1275–1283, (2015)

V. Laurent, **P. Ortega** et M. Hopuare : The Polynesian upper level trough during ENSO phases, soumis à *International J. of Climatology*

- **Conférences, congrès et colloques à communication (Conférences internationales à comité de lecture et actes publiées) :**

F. Rühling, F. Heilbronner, **P. Ortega**, P. Domens, A. Gibert, J. Dupuy, : Long airgap discharges under non standard positive impulse : Experimental set-up and effect of superimposed oscillations, ISH, Dresden, (1991)

P. Ortega, P. Domens, A. Gibert, J. Dupuy, F. Rühling, F. Heilbronner : Long airgap discharges under non standard positive impulse :Physical interpretation, ISH Dresden, (1991)

P. Ortega, P. Domens, A. Gibert, Gibert : B. Hutzler, G. Riquel : A very long spark under negative impulse, Gas Discharge Proceedings, pp580-584, (1992)

P.Bayle, D. Vukicevic, **P. Ortega**, A. Gibert : Spatio-temporal evolution of thermal imprint of long air gaps by laser interferometry, Gas Discharge, Swansea, (1992)

P. Ortega, P. Domens, A. Gibert, P.Pignolet : Experimental study of negative atmospheric large air gap, ICPIG, Bochum, 1993

A.J. Davies, R.R. Hameed, P.Ortega, R.T.Waters and W.T.Williams : The effect of humidity on positive-impulse breakdown of rod/plane gaps, ICPIG, Bochum, (1993)

P. Ortega, P. Domens, A. Gibert, P.Pignolet : Analyse de l'empreinte thermique d'une décharge électrique dans un gas, colloque annuel de la société des thermiciens, (1993)

A.J. Davies, R.R. Hameed, **P.Ortega**, R.T.Waters and W.T.Williams : The effect of humidity on positive-impulse breakdown of rod/plane gaps, ICPIG, Bochum, (1993)

T.Reess, **P.Ortega**, A.Gibert, J.Paillol, P.Domens, P.Pignolet, A.Bondiou, P.Lalande, I.Gallimberti, G.Marchiesi : Experimental study of space stem propagation in negative discharge air gaps, ISH, Graz, (1995)

P. Ortega, F. Rühling, F. Heilbronner and R. R. Díaz : Charge-voltage relation OF first corona in inhomogeneous electric field : influence of electrode curvature, ISH, Londres (1999)

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F. Rühling, F. Heilbronner, **P.Ortega**, R.R. Díaz : Laboratory-relevant corona inception of a 1-M-airgap under impulse voltage, ISH, Londres (1999)

F. Rühling, F. Heilbronner and R. R. Díaz, **P. Ortega** : How does the laboratory's ion density affect the first discharge under impulse voltage, Int. Sym Of Gas Disch., Glasgow, (2000).

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P. Ortega : Probability distribution of the first positive corona inception, Plasma Environmental - Atmospheric electricity - Space charge - Electrical discharges, Applications and prevention – Electrostatics Science and Technology", Tahiti, août 2007

J.-P. Julien, **P. Ortega** and F. Marchi : An exemple of cross-fertilization in science : electrode simulation from meter to nanoscale, Plasma Environmental - Atmospheric electricity - Space charge - Electrical discharges, Applications and prevention – Electrostatics Science and Technology", Tahiti, août 2007

E. Defer, T. Farges, C. Bovalo, J.P. Pinty, M.chong, S. Soula and **P. Ortega** : Natural lLigthning flash : from observation to modeling, Proceedings SF2A, Paris, June 2011

P. Ortega, A. Guha, E. Williams and G. Satori: Schumann Resonance observations from the Central Pacific (Tahiti), ICAE, Oklahoma, June 2014

A. Guha, E. Williams, R.Boldi, G. Satori, T. György, J.Montanya and **P. Ortega**: Schumann Resonance spectral characteristics: A useful tool to study Transient Luminous Events (TLEs) on global scale, ICAE, Oklahoma, June 2014

G. Sátori, **P. Ortega**, A. Guha and E. Williams: Possible relation between the tropical lightning chimneys and the wavenumber-4 structures in the thermosphere/ionosphere, TEA – IS Summer School, Collioure, France, June 2014

M. Hopuare, JP Céron, M. Pontaud, **P. Ortega** and M. Deque: Climate Change in French Polynesia : a downscaling challenge, European Conference on Applied Climatology, Prague, Oct, 2014

F. Lucas, **P. Ortega**, M. David, F. Simana, B. Brangeon and F. Picgirard : A method to evaluate energy performance of buildings cooled by room air conditioners, Energy Procedia, 7th Int. Conf. on Appl. Energy, Abu Dhabi, mars 2015