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Curriculum Vitae

Keywords : Hydrométéorology, Quantitative Precipitation Estimate (QPE) ; Remote sensing of precipitation ; Polarimetric radar ; Rainfall Measurement from Commercial Microwave Links

1) Training / Diploma :

PhD ; UPS Toulouse. ' Une méthode radar bi-longueur d'onde pour la discrimination eau-glace dans les nuages froids', 1996 ; directeur H Sauvageot, Laboratoire d'Aérodynamique Toulouse.

DEA électronique, UPS, Toulouse.

Diplôme ingénieur ENSEEIHT, INP Toulouse

2) Professional Positions

1998-2000 : Marshall Radar Observatory (MRO) , Université McGill Montreal, Canada :

- Post-doctoral position on a new X-band polarimetric radar project

2001-2004 : Institut de Recherche pour le Développement Affectation - LTHE, Grenoble, France.

- Scientific coordination of the Xport Project : development of a transportable X-band polarimetric radar

2005-2007 : Institut de Recherche pour le Développement Affectation – Meteorological Services , Cotonou Benin.

- Organization of field campaigns – Training – AMMA program in Benin

2008-2009 : IRD/ LTHE Grenoble ; Visiting Scientist at CNRM MétéoFrance Toulouse.

- Visiting scientist on rainfall variability in West Africa and rainfall measurement

2010-2015 : Since January 2010 : Geoscience Environnement Toulouse (GET).

- Coordination of Megha-Tropiques satellite Gr Validation (MTGV) campaigns
- Coordination of CNES/TOSCA Projet GPM/SWOT : combining satellite rainfall and water level measurement for hydrological risk assessment in the Tropics.

- Science Coordination of Rain Cell Africa Project – Rainfall measurement from mobile telecommunication networks.

3) Papers :

- Cazenave C., M Gosset, M Kacou, E Fontaine, M Alcoba and C Duroure, 2015 : Characterization of Hydrometeors in Sahelian Convective Systems with an Xband radar and comparison with in situ measurements. Part 1 : Particle identification from polarimetric data. JAMC, in revision
- Roca R, Brogniez H, Chambon P, Chomette O, Cloché S, Gosset ME, Mahfouf J-F, Raberanto P and Viltard N (2015) The Megha-Tropiques mission: a review after three years in orbit. *Front. Earth Sci.* **3**:17. doi: 10.3389/feart.2015.00017
- Satgé, F. ; Marie-Paule Bonnet; Marielle Gosset; Jorge Molina; Wilson Hernan Yuque Lima; Ramiro Pillco Zolà; Franck Timouk; Jérémie Garnier "Satellite rainfall products assessment over the Andean plateau" ; Atmospheric Research, in revision.
- Casse, C., M. Gosset, C. Peugeot, V. Pedinotti, A. Boone, B.A. Tanimoun, B. Decharme , 2015 ; Potential of satellite rainfall products to predict Niger River flood events in Niamey ; Atmospheric Research, doi:10.1016/j.atmosres.2015.01.010.
- Casse, C. and M. Gosset , 2015 : Analysis of hydrological changes and flood increase in Niamey based on the PERSIANN-CDR satellite rainfall estimate and hydrological simulations over the 1983–2013 period . Proc. IAHS, 92, 1–7, 2015 proc-iahs.net/92/1/2015/ Open Access doi:10.5194/piahs-92-1-2015
- Doumounia, A, M Gosset, F Cazenave, M Kacou and F Zougmore, 2014 ; Rainfall Monitoring based on Microwave links from cellular telecommunication Networks: First Results from a West African Test Bed. Geophysical Research Letters, 10.1002/2014GL060724.
- Guilloteau, C., M. Gosset, C Vignolles, M. Alcoba, Y. Tourre, J.P Lacaux, 2014. Impacts of satellite-based rainfall products on predicting spatial patterns of Rift Valley Fever vectors, Journal of Hydrometeorology, 10.1175/JHM-D-13-0134.1
- Ramarohetra, J., Benjamin Sultan, Christian Baron, Thomas Gaiser, Marielle Gosset, How satellite rainfall estimate errors may impact rainfed cereal yield simulation in West Africa, Agricultural and Forest Meteorology, Volume 180, 15 October 2013, Pages 118-131, ISSN 0168-1923, <http://dx.doi.org/10.1016/j.agrformet.2013.05.010>.
- Gosset M, Viarre J, Quantin G, Alcoba M. 2013. Evaluation of several rainfall products used for hydrological applications over West Africa using two high-resolution gauge networks. Q. J. R. Meteorol. Soc. [doi:10.1002/qj.2130](https://doi.org/10.1002/qj.2130)
- Kirstetter PE, N Viltard and M Gosset, 2013 :Building an error model for instantaneous satellite rainfall estimates, , Q. J. R. Meteorol. Soc ,

- Vischel T, G Quantin, T Lebel, M Gosset, J Viarre and F Cazenave, 2011 : Lagrangienn, Generation of high resolution rainfields in West Africa: evaluation of dynamical interpolation methods , Journal of Hydrometeorology, in press
- Uijlenhoet, R, J.-M. Cohard, and M. Gosset, 2011 : Path-average Rainfall Estimation From Optical Extinction Measurements Using a Large-aperture Scintillometer , Journal of Hydrometeorology, in press
- Kirstetter PE, N Viltard and M Gosset, 2011 :Building an error model for instantaneous satellite rainfall estimates, , Q. J. R. Meteorol. Soc , accepté.
- Séguis Luc, Kamagaté B., Favreau Guillaume, Descloitres Marc, Seidel J. L., Galle Sylvie, Peugeot Christophe, Gosset Marielle, Le Barbé Luc, Malinur Fred, Van Exter S., Arjounin Marc, Boubkraoui Stéphane, Wubda Maxime. Origins of streamflow in a crystalline basement catchment in a sub-humid Sudanian zone : the Donga basin (Benin, West Africa) Inter-annual variability of water budget. Journal of Hydrology, 2011, 402 (1-2), p. 1-13. ISSN 0022-1694
- Lafore J.P., Flamant C., Guichard F., Parker D.J., Bouniol D., Fink A.H., Giraud V., Gosset Marielle, Hall N., Holler H., Jones S.C., Protat A., Roca R., Roux F., Said F., Thorncroft C. Progress in understanding of weather systems in West Africa. In : Monsoon Multidisciplinary Analysis (AMMA) : an integrated project for understanding of the West African climate system and its human dimension. Atmospheric Science Letters, 2011, 12 (1), p. 7-12. ISSN 1530-261X
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