

CURRICULUM VITAE

CONTACT INFORMATION

Name: RAMON FUENTES FRANCO

Date/Place of Birth: December 5th, 1982.

Aguascalientes, Mexico.

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Current affiliation

Research scientist at Rossby Centre, Swedish Meteorological and Hydrological Institute

Current project

Process-based climate simulation: Advances in High resolution modeling and European Climate risk assessment (PRIMAVERA) Project.

Academic Background

Sept 2013 – Sept 2016: Postdoctoral Fellow at the International Centre for Theoretical Physics, Trieste Italy, under the supervision of Prof. Filippo Giorgi.

Aug 2009 – Sept 2013: Ph. D. Candidate Physical Oceanography at the Ensenada Center for Scientific Research and Higher Education (in Spanish: *Centro de Investigación Científica y de Educación Superior de Ensenada, CICESE*), thesis: Dynamics and predictability of the inter-annual variability of precipitation and surface air temperature. *Awarded as the best PhD thesis by the Union Geofisica Mexicana during 2013.*

Aug 2007 – July 2009: Master in Science in Hidrometeorology at the University of Guadalajara, developing thesis (“*Medium-range climatological projection using expected minimum error*”) advised by Dr. Edgar Pavia (CICESE). Mexico.

Aug 2000 – 2005: B.S. Electronic Engineering and Systems of Digital Communication. Graduated with Honors. Autonomous University of Aguascalientes. Mexico.

Aug 1997 – 2000: General baccalaureate. Autonomous University of Aguascalientes. Mexico

Publications

Fuentes-Franco, R., Giorgi, F., Coppola, E. Zimmermann K. Sensitivity of Tropical

Cyclones to Resolution and Convection Scheme over Eastern Tropical Pacific and Tropical North Atlantic Oceans in RegCM4 Model Clim Dyn (2016). doi:10.1007/s00382-016-3357-3

Fuentes-Franco, R., F. Giorgi, E. Coppola, F. Kucharski (2015) The role of ENSO and PDO on variability of winter precipitation over North America from 21st century CMIP5 projections. Climate Dynamics. DOI: 10.1007/s00382-015-2767-y

Fuentes-Franco, R., E. Coppola, F. Giorgi, E. G. Pavia, G. T. Diro, F. Graef. (2014) Inter-annual variability of precipitation over Southern Mexico and Central America and its relationship to Sea Surface Temperature from a set of future projections from CMIP5 GCMs and RegCM4 CORDEX simulations. Climate Dynamics 1- 16. DOI: 10.1007/s00382-014-2258-6.

Giorgi, F., E. Coppola, F. Raffaele, G. T. Diro, R. Fuentes-Franco, G. Giuliani, A. Mangain, M. Pereira-Llopart, L. Mariotti, C. Torma. Changes in extremes and hydroclimatic regimes in the CREMA ensemble projections. Clim Change 125:1–5. doi:10.1007/s10584-014-1166-4

Coppola, E., F. Giorgi, F. Raffaele, R. Fuentes-Franco, G. Giuliani, M. Llopart-Pereira, A. Mangain, L. Mariotti, G. Tefera- Diro, C. Torma. The bias and climate change signal in the Phase I CREMA Experiment. Clim Change 125:23–38. doi: 10.1007/s10584-014-1137-9

Diro, G.T., F. Giorgi, R. Fuentes-Franco, J. E. Walsh, G. Giuliani, E. Coppola. Tropical ciclones in an ensemble of regional climate change projections with RegCM4 for the CORDEX Central America domain. Clim Change 125:79–94. doi: 10.1007/s10584-014-1155-7

Fuentes-Franco, R., E. Coppola, F. Giorgi, F. Graef, E. Pavia (2013) Assessment of RegCM simulated daily-scale temperature and precipitation over Mexico. Clim Dyn DOI: 10.1007/s00382-013-1686-z.

Products

Responsible of the seasonal forecast of precipitation and temperature over Mexico submitted by CICESE for the “Foro de predicción climática de la República Mexicana” organized by the National Weather Service of Mexico. Webpage: <http://pronostico.cicese.mx/pronosticoestacional/>

Organization of workshops and sessions

Organizer of the “Second workshop on climate change, variability and modeling over Central America and Mexico”, with Dr. Filippo Giorgi, Dr. Erika Coppola, Jorge Amador, Erik Rivera from University of Costa Rica. Held in San Jose, Costa Rica in November 2016.

Organizer of the “First workshop on climate change, variability and modeling over Central America and Mexico”, with Dr. Filippo Giorgi, Dr. Erika Coppola, Dr. E. Pavia and Dr.

Federico Graef. Held in CICESE, Mexico in November 2014.

Co-chair of the special session Climate modeling and CORDEX, in the Annual meeting of the *Union Geofisica Mexicana* held in Puerto Vallarta in November 2014 and 2015.

Workshops and meetings

Member of the Phase I CREMA (CORDEX RegCM hyper-Matrix) experiment, generating climate projections for Mexico and Central America. ICTP, Trieste, Italy.

Partaker of the meeting “Foro de predicción climática de la República Mexicana”, organized by the National Weather Service of Mexico, Oaxaca, Oax., Mexico., Manzanillo, Col., México. Regional Climate Model Training at the International Center for

Theoretical Physics (RegCM4), in Trieste, Italy. Partaker of the WCRP Open Science Conference in Denver, USA, with the poster *Identification of sources of predictability and climatic variability for precipitation over Mexico*.

Partaker of the XIX Course of the Alpine Summer School 2011, Regional climate dynamics in the Mediterranean and beyond: An earth system perspective. Valle d’Aosta, Italy, 2011. Partaker of the meeting “Foro de predicción climática de la República Mexicana”, organized by the National Weather Service of Mexico, Oaxaca, Oax., Mexico.

Presentation of Ph. D. thesis proposal at the Workshop on Climate Variability and Change in the UCSD.

Partaker of the Regional Climatic Forum for Northwest Mexico and Southwest United States, in CICESE, Ensenada, Baja California, Mexico.

Academic employment experience

Aug 2005 – July 2007: Academic manager of computer labs of the Center of Design and Construction Sciences at the Autonomous University of Aguascalientes

July 2006: Collaborator as programmer with Pinxel (Design Society) database manager in the project “Pirámides poblacionales del Centro Occidente de México proyección 1900-2030”, for the Consejo Estatal de Población (COESPO).

Nov 2004 – May 2005: Professional practices at the Department of Technological Development at CIATEQ, Aguascalientes, with participation in several projects.

Awards and recognitions

Sep. 2104: Member of the SNI (Mexican National Researchers System from the National Council for Science and Technology) for the period 2015-2017.

Nov. 2013: Recipient of the *Francisco Medina Martinez* award as the best PhD thesis by the *Union Geofisica Mexicana* in 2013

Oct. 2011: WCRP Open Science Conference, October 2011, Denver, CO, **student travel grant recipient.**

May 2004: SAE WALKING ROBOT CHALLENGE 2004. Union College, Schenectady, New York, USA. First Place in General Classification, Best Design and Engineering Value.

PhD Students

Arturo Corrales Suastegui as co-director of PhD thesis on the use of coupled Regional Climate Models with dynamic vegetation

Computer experience

• HPC, Linux/Unix • Programming Languages: Matlab, Python, C++, Fortran • Data base manager. CDO, NCO, GrADS.

Languages

- Spanish: Proficient speaking, reading and writing.
- English: 90% Proficient. Speaking, Reading, Writing, Listening.
- Italian: 90% Proficient. Speaking, Reading, Writing, Listening.
- French: 70% Proficient. Speaking, Reading, Writing, Listening.
- German 25% Proficient. Listening, Reading, Speaking.
- Swedish 20% Proficient. Listening.

