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### Sinopsis

Ruth Cerezo-Mota es Oceanóloga egresada de la UABC con una Maestría en Oceanografía Física en el CICESE y doctorado en Ciencias Atmosféricas, Oceánicas y Planetarias de la Universidad de Oxford y miembro del SNI desde el 2012. Con más de 10 años de experiencia trabajando con modelos regionales climáticos, para el estudio de eventos extremos de precipitación y variabilidad interanual de lluvia. Estos estudios realizados en diferentes regiones pero principalmente a la región Noroeste de México (en el Monzón de Norteamérica). En septiembre del 2014 se incorporó como investigadora al LIPC con el programa de Cátedras CONACYT. Actualmente es Autor Líder del Grupo de Trabajo I del IPCC para el AR6.

### Summary

Ruth Cerezo-Mota received her B.S. in Oceanography from the UABC, has a M.S. in Physical Oceanography from the CICESE and got her Ph.D. in Atmospheric, Oceanic and Planetary Sciences from the University of Oxford. She has been working with regional climate models (RCM) for more than 10 years. Her studies are focused on extreme events of precipitation and interannual variability of precipitation over different regions but mainly over the Northwest of Mexico. In September of 2014 she joined the LIPC as a Researcher. Currently she is Lead Author of the IPCC Work Group I in the AR6.

### Education

- 2009 **D Phil in Atmospheric, Oceanic and Planetary Physics**, University of Oxford, UK
- 2004 **Master of Sciences in Physical Oceanography**, CICESE, México.
- 2002 **Bachelor of Science (Oceanography)**, UABC, Ensenada B.C. México.

## Professional experience

- From September 2014, Researcher at UNAM, LIPC
- December 2012 – July 2014, Professor at the University Veracruz
- January-November 2012, Post-doctoral Fellow, UCLA, LA
- October 2009- October 2011, Post-doctoral Fellow, CSAG, University of Cape Town, South Africa

## Area of Research

Regional climate modelling, climatology, climate change

## Publications

1. Cavazos, T., R. Luna, **R. Cerezo-Mota**, R. Fuentes-Franco, L.F. Pineda, M. Mendez, E. Valenzuela, Intercomparison of regional climate models and climatic trends in the CORDEX-CAM (Central America, Caribbean and Mexico) domain, submitted to *Int. Journal of Climatology* (December 2018)
2. Amador, Jorge A., T. Ambrizzi, R. Arritt, C. Castro, T. Cavazos, **R. Cerezo-Mota**, R. Fuentes-Franco, F. Giorgi, G. Giuliani, H. Lee, M. Méndez-Pérez, & E. Rivera (2018). Putting into action the REGCM4.6 regional climate model for the study of climate change, variability and modeling over Central America and Mexico. *Atmósfera*, 31(2), 185-188. <https://dx.doi.org/10.20937/atm.2018.31.02.06>
3. Appendini, C.M, A. Pedrozo-Acuña, R. Meza-Padilla, A. Torres-Freyermuth, **R. Cerezo-Mota**, J. López-González (2017) On the role of climate change on wind waves generated by tropical cyclones in the Gulf of Mexico, *Coastal Engineering Journal*
4. **Cerezo-Mota, R.**, T. Cavazos, R. Arritt, A. Torres-Alavez, K. Sieck, G. Nikulin, Wilfram Moufouma-Okia, A. Salinas (2016) CORDEX-NA: factors inducing dry/wet years on the North American Monsoon region, *Int. Journal of Climatology*. 36(2):824-836, citas:5, f.i.: 3.609
5. Favre, A., N. Philippon, B. Pohl, E. Kalognomou, C. Lennard, B. Hewitson, G. Nikulin, A. Dosio, H. Panitz, **R. Cerezo-Mota**, (2016) Spatial distribution of precipitation annual cycles over South Africa in 10 CORDEX regional climate model present-day simulations, *Climate Dynamics*, 46(5-6):1799-1818, citas: 9 f.i.: 4.708
6. Favre, A., B. Hewitson, C.Lennard, **R. Cerezo-Mota**, M. Tadross (2013) Cut-off lows in the South Africa region and their contribution to precipitation, *Climate Dynamics*, 41(9-10): 2331-2351, citas: 12, f.i.: 4.708
7. Nikulin, G., C. Jones, F. Giorgi, G. Asrar, M. Büchner, **R. Cerezo-Mota**, O. B. Christensen, M. Déqué, J. Fernandez, A. Hänsler, E. van Meijgaard, P. Samuelsson, M. Sylla, L. Sushama (2012) Precipitation climatology in an ensemble of CORDEX-Africa regional climate simulations, *Journal of Climate*, 25(18):6057-6078, <http://dx.doi.org/10.1175/JCLI-D-11-00375.1>, citas: 224, f.i.: 4.31
8. Favre A., B. Hewitson, M. Tadross, C. Lennard and **R. Cerezo-Mota** (2012) Relationships between Cut-off Lows and the Semiannual and Southern Oscillations,

Climate Dynamics, **38**(7-8): 1473-1487, doi10.1007/s00382-011-1030 , citas: 12, f.i.: 4.708

9. **Cerezo-Mota, R.**, M. Allen and R. Jones (2011) Mechanisms controlling precipitation in the northern portion of the North American Monsoon, *Journal of Climate*, **24**: 2771–2783, citas: 17, f.i.: 4.31
10. **Cerezo-Mota, R.**, T. Cavazos, L. Farfán (2006) Numerical simulation of heavy precipitation in northern Baja California and southern California, *Journal of Hydrometeorology*, **7**:137-148, citas: 5, f.i.:3.5

#### Technical Reports

1. Hall, A., F. Sun, D. Walton, S. Capps, X. Qu, H. Huang,N. Berg, J. Alexandre, M. Schwartz, M. Nakamura, **R. Cerezo-Mota** (2012). Mid-Century Warming in the Los Angeles Region - Part I of the “Climate Change in the Los Angeles Region” projec. UCLA: Institute of the Environment and Sustainability. Retrieved from <https://escholarship.org/uc/item/6v88k76b>

#### Teaching

- Graduate courses:  
Hydrology  
Research projects
- Undergraduate courses:  
Atmospheric dynamics  
Applied Climatology  
Weather Forecast

#### Projects

1. ‘East waves and their relation with moisture transport to the North American Monsoon’, CONACYT, P.I.: Ruth Cerezo-Mota (August 2012 – August 2013)
2. ‘Regional Climate projections Initiative Mexico – United Kingdom (RECLIM-UK)’, British Council, (Mexican P.I: Ruth Cerezo-Mota, British P.I: Friederike Otto (U. Oxford), from April 2015 to September 2015
3. ‘Analysis of Climatic Trends and regional dynamical downscaling for Mexico’, CONACYT-SEMARNAT (P.I.: Ruth Cerezo-Mota, from August 2016 to June 2018)
4. ‘Anthropogenic influence on the heavy winter precipitation over the northwest of Mexico in 2004 and the heavy summer precipitation over the southeast of Mexico in 2005’ sponsored by the UNAM Engineering Institute (from January 2017-July 2018)
5. ‘Stormsurge and flooding on different climatic scenarios’, CONACYT, P.I. Ruth Cerezo Mota (October 2018-October 2020)

#### Thesis supervision

- Marta Paola Rodríguez Gonzalez, M. Sc., UDG, in process
- José Zamora Salvador, M. Eng., UNAM, May 2018
- Karen Ramírez López, B. Sc. in Atmospheric Sciences, University of Veracruz, September 2015
- Francisco Carlos Herrera Vazquez, B. Sc. in Atmospheric Sciences, University of Veracruz, May 2014

## Honours and awards

CONACYT Scholarship for MSc studies

CONACTY Scholarship for PhD studies

Member of the National System of Researchers (SNI) since 2012

Lead Author of Work Group 1, AR6, IPCC

### ***Reviewer of:***

Journal of Climate Dynamics, Atmósfera, Climate Research, Journal of Climate, Journal of Weather Forecast, International Journal of Climatology, Nature Climate Change, PLOS ONE