

Curriculum vitae

Francisco Estrada was born in Mexico City. He holds a bachelor degree in Economics from the Universidad Iberoamericana (IBERO) and a MSc. in Risk Management from the Instituto Tecnológico Autónomo de México (ITAM). He received the IMEF-ERNST & YOUNG Financial Research Award 2011 and the ITAM Energy and Development Award for the best master thesis 2010. Francisco Estrada currently works at the Climate Change research group at the Center for Atmospheric Sciences (CCA) of the Universidad Nacional Autónoma de México (UNAM). He was a contributing author for the Working Group II of the IPCC's Fourth Assessment Report and an expert reviewer for the Working Group II contribution for the IPCC's Fifth Assessment Report. He has coordinated and participated in several research projects on the assessment of the potential impacts of climate change in agriculture, on economics of climate change and on the generation of regional climate change scenarios.

Publications

Articles (published)

- ♦ Estrada, F. & Perron, P., 2014. Detection and attribution of climate change through econometric methods. *Boletín de la Sociedad Matemática Mexicana*, 20(1):107-136.
- ♦ Estrada, F., Guerrero, V.M., 2014. A new methodology for building local climate change scenarios: a case study of monthly temperature projections for Mexico City. *Atmosfera*, 27(4):429-449.
- ♦ Estrada, F., Perron, P. & Martínez-López, B., 2013. Statistically derived contributions of diverse human influences to twentieth-century temperature changes. *Nature Geoscience* (2013) doi:10.1038/ngeo1999.
- ♦ Estrada, F., Guerrero, V.M., Gay-García, C. & Martínez-López, B., 2013. A cautionary note on automated downscaling methods for climate change. *Climatic Change*, 120(1): 263-276.
- ♦ Estrada, F., Papyrakis, E., Tol, R.S.J., & Gay-García, C., 2013. The economics of climate change in Mexico: implications for national/regional policy. *Climate Policy*, 13(6):738-750.

- ♦ Estrada, F., Perron, P., Gay-García & Martínez-López, B., 2013. A time-series analysis of the 20th century climate simulations produced for the IPCC's fourth assessment report. *Plos One*, 8(3), e60017.
- ♦ Estrada, F., Livezey, R.E., Martínez-López, B. & Gay-García, C., 2013. Revisiting a flawed downscaling methodology: Comment on Magaña et al. (2012). *Climate Research*, 56, 81-90.
- ♦ Estrada, F., Gay, C., Conde, C., 2012. A methodology for the risk assessment of climate variability and change under uncertainty. A case study: coffee production in Veracruz, Mexico. *Climatic Change*, 113(2): 455-479, DOI: 10.1007/s10584-011-0353-9.
- ♦ Estrada F., Martínez-López B., Conde C., Gay-García C., 2012. The new National Climate Change Documents of Mexico: What do the regional climate change scenarios represent?. *Climatic Change*, 110(3-4): 1029-1046, DOI: 10.1007/s10584-011-0100-2.
- ♦ Bravo J. L., Azpra-Romero E., Zarraluqui-Such V., Gay C., Estrada F., 2012. Cluster analysis for validated climatology stations using precipitation in Mexico. *Atmosfera*, 25(4).
- ♦ Conde C., Estrada F., Martínez B., Sánchez O., Gay C., 2011. Regional Climate Change Scenarios for Mexico. *Atmosfera*, 24, 1, 125-140.
- ♦ Sánchez-Vargas A., Gay-García C., Estrada F., 2011. Cambio climático y pobreza en el Distrito Federal. *Investigación Económica*, LXX(278):45-74.
- ♦ Estrada F., Gay C., A. Sánchez, 2010. Reply to "Does temperature contain a stochastic trend? Evaluating conflicting results by Kaufmann et al". *Climatic Change*, 101, (3-4) 407-414, DOI: 10.1007/s10584-010-9928-0.
- ♦ Gay C., F. Estrada, 2010. Objective probabilities about future climate are a matter of opinion. *Climatic Change*, 99, (1-2), 27-46, DOI: 10.1007/s10584-009-9681-4.
- ♦ Bravo J. L., Azpra-Romero E., Zarraluqui-Such V., Gay C., Estrada F., 2010. Significance tests for the relationship between "El Niño" phenomenon and precipitation in Mexico. *Geofísica Internacional* 49 (4), 245-261.
- ♦ Gay C., Estrada F., Martínez B., 2010. Cambio Climático y Estadística Oficial. Realidad, Datos y Espacio. *Revista Internacional de Estadística y Geografía*. Año 1, número 1, noviembre 2010.

- ♦ Gay C., Estrada F. 2010. Cambio de las temperaturas global y hemisféricas. Colaboración por invitación en Investigación y Ciencia (edición española de Scientific American). Investigación y Ciencia, 405, 84-89, Julio 2010.
- ♦ Gay C., F. Estrada, A. Sánchez, 2009. Global and hemispheric temperatures revisited. Climatic Change, 94, (3-4) 333-349.
- ♦ Estrada F., Martínez-Arroyo A., Fernández-Eguiarte A., Luyando E., Gay C., 2009. Defining Climate Zones in Mexico City Using Multivariate Analysis. Atmosfera, 22, 2 175-193.
- ♦ Gay C., Estrada F., C. Conde, 2007. Some implications of time series analysis for describing climatologic conditions and for forecasting. An illustrative case: Veracruz, México. Atmósfera 20, 2, 147-170, México, D. F.
- ♦ Gay C., F. Estrada, C. Conde, H. Eakin and L. Villers, 2006. Potential impacts of climate change on agriculture: a case study of coffee production in Veracruz, México. Climatic Change 79 (3-4), 259-288.
- ♦ Bravo, J. L., C. Gay, C. Conde and F. Estrada, 2006. Probabilistic description of rains and ENSO phenomenon in a coffee farms area in Veracruz, México. Atmósfera, 19, 49-74, México, D. F.

Submitted Papers

- ♦ Estrada F., Botzen W.J.W., Tol R.S.J., Bouwer L.M. 2014. Increasing economic losses from hurricanes related to global warming. Submitted to Nature Geoscience.
- ♦ Estrada F., Tol R.S.J., Gay-García C., 2014. The persistence of shocks in GDP and the estimation of the potential economic costs of climate change. Submitted to Environmental Modelling & Software.
- ♦ Estrada F., Tol R.S.J., 2014. Towards Impact Functions for Stochastic Climate Change. Submitted to Climate Change Economics.
- ♦ Estrada F., Tol R.S.J., 2014. Estimating the Global Impacts of Climate Variability and Change During the 20th Century. Submitted to Climate Research.

Book Chapters

- ♦ Gay C., Sánchez O., Martínez-López B., Nébot A., Estrada F., 2014. Fuzzy Models: Easier to Understand and an Easier Way to Handle Uncertainties in Climate Change Research. *Simulation and Modeling Methodologies, Technologies and Applications Advances in Intelligent Systems and Computing*, 256:223-237.
- ♦ Conde, C., M. Vinocur, C. Gay, R. Seiler, F. Estrada. 2008. Climatic Threat Spaces in Mexico and Argentina. In Neil Leary, Cecilia Conde, Jyoti Kulkarni, Anthony Nyong and Juan Pulhin (eds). *Climate Change and Vulnerability*. Chapter 14. Earthscan, TWAS, START. 279-306.
- ♦ Contributing author in: Magrin, G., C. Gay García, D. Cruz Choque, J.C. Giménez, A.R. Moreno, G.J. Nagy, C. Nobre and A. Villamizar, 2007: Latin America. *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds., Cambridge University Press, Cambridge, UK, 581-615.

Books

- ♦ Sánchez-Vargas A., Estrada F. & Gay-García C., 2012. *El cambio climático y la pobreza en el Distrito Federal*. Centro Virtual de Cambio Climático de la Ciudad de México. Universidad Nacional Autónoma de México. 47 pp. ISBN: 978-607-02-3099-8.
- ♦ Estrada F. & Martínez B., 2010. *Economía del Cambio Climático en la Ciudad de México (The Economics of Climate Change in Mexico City)*. Centro Virtual de Cambio Climático de la Ciudad de México. Universidad Nacional Autónoma de México. 90 pp. ISBN: 978-607-02-2112-5.