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Associate Professor of Atmospheric Science

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RESEARCH INTERESTS

Weather and Climate Dynamics, Variability and Prediction, Numerical Weather and Climate Prediction

NATIONALITY

United States, Spain, Brazil

EDUCATION

Ph. D., Atmospheric Science: Colorado State University, Ft. Collins, Colorado, 1994.
M. S., Meteorology: University of São Paulo, São Paulo, Brazil, 1988.
B. S., Meteorology: University of São Paulo, São Paulo, Brazil; December 1985.

LANGUAGES

Portuguese (fluent), English (fluent), Spanish (fluent), and French (intermediate)

WORK HISTORY

Associate Professor of Atmospheric Science - Department of Geography, Planning and Environment, East Carolina University, Greenville, North Carolina, August 2013– Present
Assistant Professor of Atmospheric Science – Department of Geography, East Carolina University, Greenville, North Carolina, August 2007 – August 2013
Adjunct Faculty - Meteorology Department, San José State University, San José, California – January 2005 – January 2007
Assistant Research Faculty - GEST / NASA Goddard Space Flight Center, Greenbelt, Maryland, October 2000 – August 2004.
Visiting Scientist – USRA / NASA Goddard Space Flight Center, Greenbelt, Maryland, October 1996- October 2000
Post Doctoral Fellow – Atmospheric Science Department, Colorado State University, Fort Collins, Colorado, July 1994 – October 1996
Researcher - University of the State of São Paulo, Bauru Meteorology Research Institute, São Paulo, Brazil, August 1988 - August 1989
Intern - Campinas Agronomy Institute, Campinas, São Paulo, Brazil, January - August 1985

GRANTS

National Science Foundation (NSF) Climate and Large-Scale Dynamics Program: Mechanisms for the seasonal transition of precipitation organization in the southeastern United States: Current and future climate, Principal Investigator. R. Nieto-Ferreira and T. M. Rickenbach (co-PIs), FY 2017-2020

NASA North Carolina Space Grant: ‘The Effect of the Gulf Stream on Precipitation Rates in the Southeast United States Atlantic Region’. Joel McAuliffe (Student) and **R. Nieto-Ferreira** (mentor). FY 2016

National Science Foundation (NSF) Physical and Dynamic Meteorology Program: Development of a climatology of precipitation system organization in North Carolina to improve climate precipitation forecasts. T. M. Rickenbach and **R. Nieto-Ferreira** (co-P.I.s). FY 2012-2015.

NASA North Carolina Space Grant: 'Modeling the effects of climate change on Southeast U.S. rainfall'. North Carolina Space Grant Graduate Research Fellowship Program. M. Nissenbaum (student) and **R. Nieto-Ferreira** (mentor). FY 2015-2016.

NASA North Carolina Space Grant: 'Weather and water delivery to North Carolina – one raindrop at a time'. North Carolina Space Grant Graduate Research Fellowship Program. L. Hall. (student) and **R. Nieto-Ferreira** (mentor). FY 2012-2013.

National Oceanic and Atmospheric Administration (NOAA) Climate and Global Change Program's Climate Prediction Program for the Americas (CPPA): Onset of the South American Monsoon: Mechanisms and Predictability. T. M. Rickenbach and **R. Nieto-Ferreira** (co-PIs). FY 2007-2009.

NASA LBA Hydrology Program: 'Role of land-surface processes and regional and global interactions in the seasonal to interannual variability of the atmosphere in the Amazon region'. **R. Nieto Ferreira** (PI), M. Suarez, R. Koster, and T. M. Rickenbach, FY 1999-2001.

AWARDS

2014-2015 ECU Scholar-Teacher Award: This award 'recognizes outstanding faculty who integrate scholarship and teaching and who seek to mentor others in doing so'.

2014 ECU Senate Teaching Grant Recipient - 'Development of the ECU Weather Forecasting Teaching Laboratory (ECU-WFTLab)', (\$10,000)

TEACHING

Introductory Undergraduate

GEOG 1250 – Water Planet

GEOG 1300 – Weather and Climate

Intermediate and Advanced Undergraduate

GEOG 3230 – Global Climates

ATMO 121A – Dynamic Meteorology I

ATMO 4525 – Dynamic Meteorology II

ATMO 4550 – Applied Synoptic Meteorology: Analyses and Forecasting

GEOG 4590 – Tropical Meteorology

Graduate

GEOG 6525 – Advanced Dynamic Meteorology

GEOG 6550 – Advanced Synoptic Meteorology and Forecasting

GEOG 6590 – Advanced Tropical Meteorology

Global Classroom/International Teaching

GEOG 3230 – Global Climate Change: taught in the ECU Global Classroom to a group of students in universities in Brazil, Russia, India, China, and Mexico.

Graduate Student Advising

Thesis Advisor - M.A. Geography (5)

Thesis Committee Member - M.A. Geography (4), M.S. Geology (2), M.S. Meteorology (1),

Dissertation Committee Member - Ph.D. Atmospheric Science (4)

PROFESSIONAL SERVICE

Editor, Journal of Climate – January 2014 - 2017.

Editorial Board Member, Investigaciones Geográficas a peer reviewed journal of the Instituto Interuniversitário de Geografia, Universidad de Alicante, Spain – August 2015 - Present.

Member, American Meteorological Society Board of Continuing Professional Development – Spring 2016-Present

Panelist, NSF Geography and Spatial Sciences Program – Fall 2016, Spring/Fall 2017.

Manuscript Reviewer for Journal of Climate; Journal of Geophysical Research, Atmospheres; Journal of the Atmospheric Sciences; Geography Compass; Climate Dynamics; Journal of Climate; Journal of Applied Meteorology and Climatology;

Monthly Weather Review; Revista Brasileira de Meteorologia (Portuguese), Atmosf era (Spanish).

Proposal Reviewer for the NSF (Geography and Spatial Sciences, Climate and Large-Scale Dynamics, and Physical and Dynamic Meteorology), NASA, NOAA and Harriot College of Arts and Sciences Research Awards.

UNESCO International Expert Reviewer: Invited by UNESCO and the Brazilian Ministry of Science and Technology (MCT) to be the international expert to review the first edition of the Brazilian Panel on Climate Change (the Brazilian equivalent to the United Nations IPCC Report).

PROFESSIONAL DEVELOPMENT

Harriot College of Arts and Sciences College Leadership Seminar, Fall 2014.

UNC Charlotte ADVANCE Conference titled “Charting Your Path: Strategies for Success in Academe: A Conference for STEM Women Associates Professors and Their Administrators”, March 16 2011.

PROFESSIONAL ORGANIZATION MEMBERSHIP

American Meteorological Society
NC Space Grant Consortium
Affiliate faculty of the Center for Sustainable Tourism, ECU

UNIVERSITY SERVICE

Director of M.S. in Geography (2017-Present)

ECU Faculty Senator for Geography, Planning, and Environment (2016-Present)

ECU Committee on Committees (2016-Present)

ECU Teaching Grants Committee (2015-2016)

ECU Sustainability Committee, Climate Change Mitigation Subcommittee, Member

HCAS RCA Grants Review Committee: Reviewed 20 grant applications (2014)

ECU Honors College Application Review Panel, Member (2014)

UNC-GA disciplinary panel to review North Carolina State University’s Request for Authorization to Establish the Master of Climate Change and Society – ECU Representative (2010).

ECU Research and Creative Activity Week Judge of student undergraduate and graduate oral and poster presentations (2009, 2012, 2014, 2017, 2018)

Graduate Committee, Member, ECU Department of Geography Planning and Environment (2007-2010, 2012-2017)

Social Committee, Chair, ECU Department of Geography Planning and Environment (2007- 2010).

Colloquium Committee, Chair, ECU Department of Geography Planning and Environment (2012-2015).

Search Committee for Information Technology Position, Member, ECU Department of Geography Planning and Environment (2012).

INVITED PRESENTATIONS

'Riesgos Climáticos en Estados Unidos de América'. Invited presentation at the **Máster en Planificación y Gestión de Riesgos Naturales of the Instituto Interuniversitario de Geografía, Universidad de Alicante, Spain**. December 2017.

Keynote Address: '*Variabilidad climática en el sureste de Estados Unidos: Observaciones y Modelización*', **10th International Conference of the Spanish Climate Association - Climate, Society, Risks and Planning, Alicante, Spain**, October 2016.

Scholar-Teacher Award Presentation: 'Hooking Pirates on the Weather', **2015 ECU Scholar-Teacher Awards Symposium**. Spring 2015.

'*Climate Change: Science and Impacts in Eastern NC*', **Carteret Community College Campus**, March 2017.

'Riesgos Climáticos en Estados Unidos de América'. Invited presentation at the **Máster en Planificación y Gestión de Riesgos Naturales of the Instituto Interuniversitario de Geografía, Universidad de Alicante, Spain**. October 2015.

'*Dynamics of Subtropical Precipitation in the Americas*'. **Earth and Atmospheric Sciences Department of Saint Louis University**, April 2015.

'*Dynamics of Subtropical Precipitation in the Americas*'. **Department of Geosciences of Mississippi State University**, February 2015.

'*Sea Level Rise: The Impact of Climate Change on the Outer Banks*', **North Carolina Center for the Advancement of Teaching Seminar Series**, Ocracoke Island, May 1 2013.

'*Precipitation in a changing climate: observations and modeling*'. **NC Space Grant Symposium** January 16 2014.

'*Precipitation in a changing climate: observations and modeling*'. **ECU Water Resources Seminar Series**, March 5 2014.

'*Mechanisms for the onset of the South American Monsoon*'. **Duke University Nicholas School for the Environment Seminar Series**. September 21 2011, Durham, NC.

'*A Multi-National Course on Global Climate Change*', **ECU International Scholars Symposium**, April 6 2011, Greenville, NC.

'*GEOG3230: Global Climate Change*', **ECU Global Academic Initiatives Workshop**, ECU, December 2011, Greenville, NC.

'*Radar observations of convective system variability and interaction with African easterly waves during the 2006 AMMA IOP*'. **NC State University's Department of Marine, Earth, and Atmospheric Science**. September 2008, Raleigh, NC.

PUBLICATIONS

REVIEWED LITERATURE

Luchetti, N.T., **R. Nieto Ferreira**, R., T.M. Rickenbach, M.R. Nissenbaum, and J.D. McAuliffe (2017). Influence of the North Atlantic Subtropical High on wet and dry sea-breeze events in North Carolina, United States. *Investigaciones Geográficas*, (68), 9-25. [https:// doi.org/10.14198/INGEO2017.68.01](https://doi.org/10.14198/INGEO2017.68.01)

Rickenbach, T. M., **R. Nieto-Ferreira**, C. Zarzar, and B. Nelson, 2014: A seasonal and diurnal climatology of precipitation organization in the southeastern United States. *Q. J. Roy. Met. Soc.* DOI: 10.1002/qj.2500

Nieto-Ferreira, R., and L. Hall, 2014: Midlatitude cyclones in the southeastern United States: frequency and structure differences by cyclogenesis region. *Int. J. Climatol.* DOI: 10.1002/joc.4247

Nieto-Ferreira, R., L. Hall, and T. M. Rickenbach, 2012: A climatology of the structure, evolution, and propagation of midlatitude cyclones in the Southeastern United States. *J. Climate*, 26, 8406–8421.

Rickenbach, T. M., **R. Nieto-Ferreira**, R. Barnhill, and S. Nesbitt, 2012: Seasonal and regional differences in the rainfall and intensity of isolated convection over South America. *Int. J. Climatology*, 33, 8, 2002-2007.

Nieto-Ferreira, R., and W. Chao, 2011: Aqua-planet simulations of the role of Amazon convection and cold fronts in the formation of the South Atlantic Convergence Zone. *Int. J. Climatol.* DOI: 10.1002/joc.3457.

- Nieto-Ferreira, R.** and co-authors, 2011: A multi-national course on global climate change. Bulletin of the American Meteorological Society. doi: <http://dx.doi.org/10.1175/BAMS-D-11-00048.1>.
- Nieto-Ferreira R.,** T. M. Rickenbach, and E. A. Wright, 2011: The role of cold fronts in the onset of the South American monsoon. *Q. J. Roy. Met. Soc.* 137, Issue 657, 908–922, Part B, DOI: 10.1002/qj.810
- Rickenbach, T. M., **R. Nieto-Ferreira,** R. Barnhill, and S. Nesbitt, 2011: Regional contrast of mesoscale convective system structure prior to and during monsoon onset across South America. *J. Climate,* 24, 3753–3763.
- Nieto-Ferreira, R.** and T. M. Rickenbach, 2010: Regionality of monsoon onset in South America: A three-stage conceptual model. *Int. J. Climatol.,* doi:10.1002/joc.2161.
- Rickenbach, T. M., **R. Nieto-Ferreira,** J. Rickenbach, and E. Wright, 2009: Monsoon in the Americas: Opportunities and challenges. *Geography Compass,* 3, 1-16, doi:10.1111/j.1749-8198.2009.00266.x.
- Nieto-Ferreira, R.,** T. Rickenbach, N. Guy, and E. Williams, 2009: Radar observations of convective system variability in relationship to African easterly waves during the 2006 AMMA special observing period. *Mon. Wea. Rev.,* 137, 4136-4150, 2009.
- Rickenbach, T. M., **R. Nieto-Ferreira,** N. Guy, and E. Williams, 2009: Radar-observed squall line propagation and the diurnal cycle of convection in Niamey, Niger during the 2006 African Monsoon Multidisciplinary Analyses Intensive Observing Period. *J. Geophys. Res.,* 114, D03107, doi:10.1029/2008JD010871, 2009.
- Andre, R., A. Garcia, J. P. M. Abreu, **R. Nieto Ferreira,** P. V. V. Prasad, and D. White, 2006: Climate and weather risk assessment for agricultural planning. Revisions to the World Meteorological Organization's Guide to Agricultural Meteorological Practices. (<http://www.wmo.ch/web/wcp/agm/RevGAMP/RevGAMP.htm>)
- Schubert, W. H., E. Ruprecht, R. F. A. Hertenstein, **R. Nieto Ferreira,** R. K. Taft, P. E. Ciesielski, and H.-C. Kuo, 2004: English translations of seven of Ertel's original papers on vorticity and potential vorticity principles. *Meteorologische Z.,* 13, 527-576.
- Nieto Ferreira, R.,** T. M. Rickenbach, D. Herdies, and L. M. V. Carvalho, 2003: Variability of South American convective cloud systems and tropospheric circulation during January-March 1998 and 1999. *Mon. Wea. Rev.,* 131, 961-973, 2003.
- Herdies, D. H., A. Silva, M. A. F. Silva Dias, and **R. Nieto Ferreira,** 2002: The moisture budget of the bimodal pattern of the Summer circulation over South America. *J. Geophys. Res.,* 107 (D20), 10.1029/2001JD000997.
- Rickenbach, T. M., **R. Nieto Ferreira,** J. Halverson, D. Herdies, and M. A. F. Silva Dias, 2002c: Modulation of convection in the Southwestern Amazon Basin by extratropical stationary fronts. *J. Geophys. Res.,* 107 (D20), 8040, doi: 10.1029/2000JD000263.
- Nieto Ferreira, R.,** and W. H. Schubert, 1997: Barotropic aspects of ITCZ breakdown. *J. Atmos. Sci.,* 54, 261-285.
- Nieto Ferreira, R.,** and W. H. Schubert, 1997: On the role of tropical cyclones in the formation of tropical upper tropospheric troughs. *J. Atmos. Sci.,* 56, 2891-2907.
- Nieto Ferreira, R.,** W. H. Schubert and J. J. Hack, 1996: Dynamical aspects of twin tropical cyclones and the Madden-Julian Oscillation. *J. Atmos. Sci.,* 56, 2891-2907.
- Silva Dias, M. A. F. and **R. Nieto Ferreira,** 1992: Application of a linear spectral model to the study of Amazonian squall lines during GTE/ABLE IIB, *J. Geophys. Res.,* 97, n. D18, 20405-20419.

BOOK CHAPTER

- Garcia, N. O., **Nieto-Ferreira, R.,** and E. Latrubesse, 2009: Climate and Geomorphological disasters in Latin America. Edgardo Latrubesse (Ed.) *Natural hazards and human exacerbated disasters in Latin America.* Elsevier.

CONFERENCE PRESENTATIONS

- Rickenbach, T., **R. Nieto-Ferreira**, and M. Nissenbaum (March 2017). Modeling the effects of climate change on precipitation in the Southeast United States. ECU Climate Change and Health Symposium (First place in poster competition)
- Rickenbach, T. M., **R. Nieto Ferreira**, and M. Nissenbaum (January 2017) Warm-season precipitation organization in the southeast United States: Current and future climate. Robert A. Houze, Jr. Symposium, American Meteorological Society 97th Annual Meeting, Seattle WA, 23-27 January 2017, Seattle, Washington, January 2017
- Rickenbach, T., **R. Nieto-Ferreira**, and M. Nissenbaum (January 2016). ‘Diurnal variation of isolated convection over land and ocean in the southeastern United States’. 96th American Meteorological Society Annual Meeting, New Orleans, Louisiana, January 2016.
- Nissenbaum, M., **R. Nieto-Ferreira**, and T. Rickenbach (January 2016). ‘Case studies of the impacts of climate change on precipitation organization in the United States’. 96th American Meteorological Society Annual Meeting, New Orleans, Louisiana, January 2016.
- Nissenbaum, M., **R. Nieto-Ferreira**, and T. Rickenbach, (November 2015). ‘Precipitation organization in a warmer climate’. 70th Annual Southeastern Division of the Association of American Geographers Conference (SEDAAG), Pensacola, Florida, November 2015.
- Nissenbaum, M., **R. Nieto-Ferreira**, and T. Rickenbach (November 2015). ‘Precipitation organization in a warmer climate’. North Carolina Space Grant Symposium, High Point, North Carolina, November 2015.
- Rickenbach, T. M., **R. Nieto Ferreira**, and M. Nissenbaum (2017) *Warm-season precipitation organization in the southeast United States: Current and future climate*. Robert A. Houze, Jr. Symposium, American Meteorological Society 97th Annual Meeting, Seattle WA.
- Nissenbaum, M., **Nieto-Ferreira, R.**, Rickenbach, T. (2015). Precipitation organization in a warmer climate. 95th Meeting of the American Meteorological Society, Phoenix, AZ.
- Nieto-Ferreira, R.**, Nissenbaum, M., and Rickenbach, T. (2014). Precipitation organization in a warmer climate. American Geophysical Union Meeting, San Francisco.
- McAuliffe, J., and **Nieto Ferreira, R.** (2015). *Synoptic Climatology of propagating Sea Breeze events in North Carolina*. 2015 Research and Creative Achievement week, Greenville, North Carolina.
- Nissenbaum, M., and **Nieto Ferreira, R.** (2015). *Southeast U.S. Precipitation Changes in a Warmer Climate*. 2015 Research and Creative Activity week, Greenville, North Carolina.
- Nieto-Ferreira, R.** and T. M. Rickenbach: Structure and propagation of midlatitude cyclones in the southeast United States, 16th Cyclone Workshop, Sainte Adele, Canada, September 2013.
- Rickenbach, T., C. Zarzar, **R. Nieto-Ferreira**, and B. Nelson, A five-year climatology of precipitation organization in the southeastern U.S: initial results, 36th Conference of Radar Meteorology, Breckenridge, CO, September 2013.
- Nissenbaum, M., and **Nieto-Ferreira, R.**, 2014: Climate change and precipitation organization in the southeast U.S., 13th Annual Student Conference of the American Meteorological Society, Atlanta, GA, January 2014.
- Zarzar, C., T. M. Rickenbach, **R. Nieto-Ferreira**, and B. Nelson, 2014: A GIS-based analysis of precipitation organization and regional hydrology in North Carolina, 94th Annual Meeting of the American Meteorological Society, Atlanta, GA, January 2014.
- Nieto-Ferreira, R.**, T. M. Rickenbach, C. Zarzar, and B. Nelson, 2014: Seasonal variability of precipitation modes-of-delivery within midlatitude cyclones in the Southeastern United States, 94th Annual Meeting of the American Meteorological Society, Atlanta, GA, January 2014.
- Nissenbaum, M. and **R. Nieto-Ferreira**, ‘East Coast Vs. West Coast Typhoons in the Philippines’, poster presented at the Research and Creative Activity Week, ECU, April 10 2013.
- Hall, L. and **R. Nieto-Ferreira**: A climatology of the structure, frequency and propagation of midlatitude cyclones that affect North Carolina, Research and Creative Activity Week, ECU, March 2012, Greenville, NC.
- Nieto-Ferreira, R.**, and T. Rickenbach, Climatology of precipitation system organization in North Carolina: Methodology and early results. American Meteorological Society 92nd Annual Meeting, New Orleans, LA, January 2012.
- Rickenbach, T., **R. Nieto-Ferreira**, L. Hall, B. Nelson, S. Stevens, S. Ansari, and S. Del Greco: Constructing a climatology of precipitation organization in North Carolina. Abstract H41G- 1134, Fall Meeting, American Geophysical Union, San Francisco, California, USA, 5-9 December 2011.
- Nieto-Ferreira, R.**, and W. Chao: Aqua-planet simulations of the role of cold fronts in the onset of the South Atlantic Convergence Zone. 35th Climate Diagnostics and Prediction Workshop, Raleigh, NC, October 2010.
- Rickenbach, T., **R. Nieto-Ferreira**, R. Barnhill, and S. Nesbitt, Evolution of regional differences in precipitation system intensity prior to and during South American monsoon onset. EOS Transactions, American Geophysical Union, 91(26), Meeting of the Americas Supplement, Abstract A33D-07, Foz do Iguacu, Brazil, 2010.
- Nieto-Ferreira, R.** and T. Rickenbach, The role of cold fronts in the onset of the South Atlantic Convergence Zone. EOS Transactions, American Geophysical Union, 91(26), Meeting of the Americas Supplement, Abstract A34B-03, Foz do Iguacu, Brazil, 2010.
- Barnhill, R., T. Rickenbach, **R. Nieto-Ferreira**, E. Wright, and S. Nesbitt, Regional variation of convective structure at monsoon onset across South America inferred from TRMM observations. American Meteorological Society (AMS) 22nd Conference on Climate Variability and Change, Atlanta, GA, 18-22 January 2010.
- Wright, E., **R. Nieto-Ferreira**, T. Rickenbach, and R. Barnhill, Effects of cold fronts on the onset of the South American Monsoon. American Meteorological Society (AMS) 22nd Conference on Climate Variability and Change, Atlanta, GA, 18-

22 January 2010.

- Nieto-Ferreira, R.**, and T. Rickenbach, A three-stage conceptual model for South America monsoon onset. American Meteorological Society (AMS) 22nd Conference on Climate Variability and Change, Atlanta, GA, 18-22 January 2010.
- Barnhill, R., T. Rickenbach, **R. Nieto-Ferreira**, S. Nesbitt, and E. Wright, Regional variation of convective structure at monsoon onset across South America inferred from TRMM observations. Southeastern Division of the Association of American Geographers (SEDAAG) 64th Annual Meeting, Knoxville, Tennessee, November 2009.
- Wright, E., **R. Nieto-Ferreira**, T. Rickenbach, and R. Barnhill, Effects of cold air intrusions on the onset of the South American monsoon. Southeastern Division of the Association of American Geographers (SEDAAG) 64th Annual Meeting, Knoxville, Tennessee, November 2009.
- Barnhill, R., T. Rickenbach, **R. Nieto-Ferreira**, S. Nesbitt, and E. Wright, Regional variation of convective structure at monsoon onset across South America inferred from TRMM observations, American Meteorological Society (AMS) 34th Conference on Radar Meteorology, Williamsburg, Virginia, October 2009.
- Nieto-Ferreira, R.**, T. Rickenbach, E. Williams, and N. Guy, Radar observations of convective system variability in relationship to African easterly waves during the 2006 AMMA SOP, 3rd International African Monsoon Multidisciplinary Analysis (AMMA) Conference, Ouagadougou, Burkina Faso, West Africa, July 2009.
- Rickenbach, T. M., **R. Nieto-Ferreira**, S. Nesbitt, and D. Herdies, Mechanisms for temporal and spatial variations of South America Monsoon onset gleaned from TRMM observations of convective structure, American Meteorological Society (AMS) 21st Conference on Climate Variability and Change, Phoenix, Arizona, January 2009. **Nieto-Ferreira, R.**, T. M. Rickenbach, N. Guy, and E. Williams, Radar observations of convective system variability and interaction with African easterly waves in the West African Sahel region, American Meteorological Society (AMS) 21st Conference on Climate Variability and Change, Phoenix, Arizona, January 2009.
- Nieto-Ferreira, R.**, and T. M. Rickenbach, Rainfall organization in the African Sahel: Humble beginnings of most Atlantic Ocean hurricanes, Southeastern Division of the American Association of Geographers (SEDAAG) 63rd Annual Meeting, Greensboro, North Carolina, November 2008.
- Rickenbach, T., **R. Nieto-Ferreira** and R. Barnhill. Interannual and regional variations of South America monsoon onset: Insights from satellite observations of precipitation and convective structure. NOAA Climate Prediction Program for the Americas (CPPA) Principal Investigator's Meeting, Silver Spring, Maryland, September 2008.
- Rickenbach, T., **R. Nieto-Ferreira**, D. Herdies, and S. Nesbitt, Regional differences in South American Monsoon onset: Implications for onset predictability, American Meteorological Society 28th Conference on Hurricanes and Tropical Meteorology, Orlando, Florida, April 2008.
- Nieto-Ferreira, R.**, T. Rickenbach, N. Guy and E. Williams, MIT radar observations of the evolution of the West African Monsoon during the AMMA IOP, American Meteorological Society (AMS) 28th Conference on Hurricanes and Tropical Meteorology, Orlando, Florida, April 2008.
- Nieto-Ferreira, R.**, Rickenbach, T., Guy, N., and Williams, E., Evolution of the African Monsoon during 2006. 6th Climate Prediction Applications Science Workshop, University of North Carolina, Chapel Hill, North Carolina, March 2008.
- Guy, B. N., T. Rickenbach, **R. Nieto-Ferreira**, and E. Williams, Radar observations of West African Monsoon Precipitation: Evolution of the 2006 monsoon season. *Eos Trans., AGU*, 88(52), Fall Meeting Suppl., Abstract A43B-1141, 2007.
- Rickenbach, T., **R. Nieto-Ferreira**, N. Guy, and E. Williams, Radar-observed squall line propagation and the diurnal cycle of convection in Niamey, Niger during the 2006 AMMA IOP, 3rd International African Monsoon Multidisciplinary Analysis (AMMA) Conference, Ouagadougou, Burkina Faso, West Africa, July 2009.
- Nieto-Ferreira, R.**, 1993: Barotropic Analysis of ITCZ Breakdown. Proceedings of the Ninth Conference on Atmospheric and Oceanic Waves and Instability and 20th Conference on Tropical Meteorology and Hurricanes, San Antonio, Texas, J58-J59.
- Nieto-Ferreira, R.**, D. L. Herdies, T. M. Rickenbach, L. M. V. Carvalho, and A. Silva, 2002: SACZ, SALLJ and the organization of convection in southern Brazil and Uruguay during JFM of 1989 and 1999. Proceedings of the VAMOS/CLIVAR Conference on South American Low-Level Jet, Santa Cruz, Bolivia, February 2002.
- Nieto-Ferreira, R.**, S. Nigam, and M. Suarez, 2000: Effects of baroclinic waves on the South Atlantic Convergence Zone. Proceedings of the 6th Conference on Southern Hemisphere Meteorology and Oceanography, Santiago, Chile.
- Nieto-Ferreira, R.**, W. H. Schubert and J. J. Hack, 1995: Twin tropical cyclones and the Madden Julian Oscillation. Proceedings of the 21th Conference on Tropical Meteorology and Hurricanes, Miami, Florida, 410-412.
- Nieto-Ferreira, R.**, and W. H. Schubert, 1997: On the formation and evolution of tropical upper tropospheric troughs. Proceedings of the 22nd Conference of Tropical Meteorology and Hurricanes, Fort Collins, Colorado, 19-23 May 1997, 270-271.
- Nieto-Ferreira, R.**, and W. H. Schubert, 1997: Tropical cyclone and tropospheric polar vortex interactions. Proceedings of the 11th Conference on Atmospheric and Oceanic Fluid Dynamics, Tacoma, Washington, 23-27 June 1997, 162-165
- Nieto-Ferreira, R.**, and M. A. F. Silva Dias, 1988: Application of a linear spectral model to the study of squall lines in the N-NE coast of Brazil (in Portuguese), Proceedings of the Fifth Brazilian Conference of Meteorology, vol. 2.
- Nieto-Ferreira, R.**, M. Suarez, and J. Bacmeister, 2000: Role of easterly waves in the maintenance of the African Easterly Jet. Proceedings of the 24th Conference on Hurricanes and Tropical Meteorology, Ft. Lauderdale, Florida, USA.
- Nieto-Ferreira, R.**, M. Suarez, 2002: NSIPP-1 simulations of ENSO-related South American low-level jet variability. Proceedings of the VAMOS/CLIVAR Conference on South American Low-Level Jet, Santa Cruz, Bolivia, February 2002.
- Nieto-Ferreira, R.**, M. Suarez, and S. Schubert, 2004: 20th century interannual-to-multidecadal precipitation variability in the

- NSIPP-1 AGCM. Proceedings of the 1st International CLIVAR Science Conference, Baltimore, Maryland.
- Flatau, M., Flatau, P., **Nieto-Ferreira, R.**, and Phoebus, P., 1995: The analysis of development of cyclone pair in the Western Pacific. Proceedings of the 21th Conference on Tropical Meteorology and Hurricanes, Miami, Florida, 413-415.
- Rickenbach, T. M., R. Nieto-Ferreira, and J. B. Halverson, 2000: Relationship between mesoscale properties of convection and large-scale regimes during TRMM-LBA in Rondonia, Brazil. Proceedings of the 6th Conference on Southern Hemisphere Meteorology and Oceanography, Santiago, Chile.
- Rickenbach, T. M., R. Nieto-Ferreira, J. B. Halverson, and R. Cifelli, 2000: Evolution of mesoscale convective systems in contrasting large scale regimes from radar and infrared satellite data during the TRMM-LBA field campaign in Rondonia, Brazil. Proceedings of the 24th Conference on Hurricanes and Tropical Meteorology, Ft. Lauderdale, Florida, USA.
- Silva Dias, P. L., C. A. Nobre, M. A. R. Santos, J. C. P. Cohen, E. J. P. Rocha, R. L. Guedes, R. Nieto-Ferreira, I. A. Santos, 1988: Diurnal variation of the troposphere during ABLE IIB (in Portuguese), Proceedings of the Fifth Brazilian Conference of Meteorology, vol. 1.