

Name: Monique Y. Leclerc

Rank: Professor

% Salary Budgeted: Instr. Res. 100 Ext. Outreach



Program Overview:

Education: Ph.D. University of Guelph 1987
M.Sc. University of Guelph 1982
B.Sc. McGill University 1980

Employment:

2001- present Professor, University of Georgia, Dept. of Crop and Soil Sciences
07/2003- present Adjunct Professor, Chiang-Mai University, Chiang-Mai, Thailand
7/01/95-2001 Associate Professor, University of Georgia, Dept. of Crop and Soil Sciences
1991-1997 Adjunct Professor, McGill University, Dept. of Atmospheric and Oceanic Sciences
6/01/90 - 6/01/95 Associate Professor, University of Quebec at Montreal, Dept. of Physics
2/14/91 - 6/30/95 Adjunct Professor, University of Quebec at Montreal, Dept. of Environmental Sciences
8/01/87 - 5/31/90 Assistant Professor, Utah State University, Dept. of Soils and Biometeorology
8/01/87- 07-01-90 Adjunct Professor, Ecology Center, Utah State University
6/01/88 - 12/01/88 Invited Junior Scientist, National Center of Atmospheric Research (NCAR)
(Dual appointment with Utah State University)

Membership in Professional Societies:

European Geophysical Union
International Society of Biometeorology
American Society of Agronomy
American Meteorological Society
Canadian Meteorological and Oceanographical Society
Canadian Society of Agricultural Meteorology
Agriculture Institute of Canada
American Geophysical Union
American Association of University Women
American Association of University Professors
Association Canadienne-Francaise pour l'Avancement des Sciences

Awards:

Tromp Foundation Award, 1999, 2000
Manchester Who's Who Among Executive and Professional Women, 2003-2004
Honors Edition of the Registry

Who's Who International Historical Society, 2004-2005

Who's Who Woman of the Year

Who's Who Scientist of the Year

Who's Who Professional Woman of the Year

Marquis Who's Who (nominated) 2006

Contributions to Teaching:

(1) Undergraduate
Course # Title Times taught (Sp & Fall) Avg. # of Students

(2) Graduate
Course # Title Times taught (Sp & Fall) Avg. # of Students

(3) Service on Graduate Advisory Committees
Degree (MS/Ph.D)

1 Master's student, Deepthi Achutavarier (Supervisor)
2 PhD students Involvement (chair)

Graduate Students Directed: 3

Achutavarier, D. Modification of the analytical solution to the diffusion equation for footprint calculations in the roughness sub-layer and footprint climatology at the Maine AmeriFlux site. Ms candidate. The University of Georgia. Crop and Soil Sciences. 2003. (completed)

Pingitha, N. Nocturnal respiration as a stress indicator in peanuts. In progress. PhD thesis.

Chayawat, C. Stable carbon and water vapor isotopes as a source signature and partitioning mechanism in pine forests. In progress. PhD thesis.

Assistant Research Scientist and Post-doctoral Students Directed: 4

Karipot, Anandakumar, 2000-present

Zhang, Gengsheng, 2002-present

Hong, Jinkyu, 2006-present

Prabha, Thara, 2001-2006

Mentoring undergraduates:

Four undergraduate students mentored by Leclerc between 1999- and present:

Kate Hutson (two summers)

Brad Morris (two summers)

Dino Mantra (one summer)

Brian Martin (first summer this year; returning next year)

IMPACT on students: All the students but one have returned to my program

for a second summer. One (Kate Hutson) has now obtained since her undergraduate and graduate degrees in Environmental Science from Baylor University; the second one has now his degree in Electrical Engineering at Georgia Tech (Dino Mantra); one other is now a Physics undergraduate at Rice University (Brad Morris); and a fourth one is now a Biometeodical undergraduate student at Georgia Tech (Brian Martin) (he was one of the top 250 best physics students in the USA). These young people came based on word-of-mouth recommendation. I had not advertised any summer position.

Continuous educational programs at other colleges or universities in which you participated

Graduate students from Clark Atlanta University and from Morehouse participated to the research site in Gainesville, Florida as part of their instrumentation class as part of their advanced degree in Environmental Sciences (1999)

Contributions to Research and Other Creative Activities:

No. of books: 3 --- two more are in progress with Agr. and Forest Meteorology and with Springer-Verlag/Kluwer

No. of book chapters: 1

No. of refereed papers/by journal: 26 peer-review articles between 1999 and 2005 – highly cited articles in international high-impact factor journals

No. of proceedings papers: 100's

No. of abstracts: 100's

No. of Patents/PVPs: n.a.

Invitations to be Guest Speaker at National and International Conferences:

Invited Speaker, AsiaFlux, Annual Asian Conference on Carbon Cycling; Yamanashi Prefecture, Japan, 2005;

Guest Speaker, KoFlux, Yonsei University, 2005;

Royal Jubilee Program Guest Speaker, Chiang Mai University, Thailand, 2005

Member of the International Scientific Committee 2005

Invited Speaker, University of Helsinki/ Finnish Meteorological Institute, 2004

Member of the International Scientific Committee for the Workshop on Footprints of Fluxes and Concentrations in Finland, 2002-2003

PhD Dissertation Opponent, University of Helsinki, Helsinki, 2004

Invited Speaker at the International Workshop on Footprints of Fluxes and Concentrations, Hyuttyala, Finland, May 2003

Invited Speaker, Georgia Institute of Technology, Earth and Atmospheric Sciences, 1999, 2002

Invited Speaker at the International Congress of of Biometeorology and Aerobiology 2002

Invited speaker GCEP (Global Change Environmental Program) Oakridge National Lab-Argonne Natl Lab Educational Program, 2002;

Invited speaker at the INTAS Conf. On Footprints, Thurnau, Germany, Nov. 2001;

The Impact of Flow Circulations on Flux Footprints Brookhaven National Laboratory, Environmental Sciences, Long Island, NY 2000.

Turbulence-Tracer Atmospheric Program at the Lab for Atmospheric and Environmental Physics of the University of Georgia, July, Athens, GA. Presented to the Air Quality Group of the University of Georgia. 2000.

Invited Seminar. Advances in Agricultural and Forest Meteorology in relation to the NASA Space Program. NASA Recovery Program. Clark-Atlanta University. Physics Dept, Environmental Program. Sept 19th. 1999

Invited speaker at the International Congress of Biometeorology and Urban Climatology in 1999.

Invited Speaker at Harvard University, NIGEC meetings, 1999

Contributions to Extension:

- Two public interviews on global warming and its impact to farmers in Sydney, Australia and broad-casted on TV and radio channels throughout Australia: Nov. 12, 1999. Sydney, Australia,
- Red and Black newspaper article in which Leclerc explains the goals of her studies pertaining to the studies of wakes behind pesticide aircraft. Aug. 2001.
- Mathieu, N, I.B. Strachan, M.Y. Leclerc. 2003. Annual meeting of farmers, Coteau-du-Lac William Houde, Quebec, Canada.
- Greenhouse gas emissions research by UGA Leclerc’s group in 2005 sent to:
 - >Georgia FACES, “Researchers track greenhouse gases in forests”
<http://georgiafaces.caes.uga.edu/sotrypage.cfm?storyid=2017>
 - >NASA News
<http://earthobservatory.nasa.gov/Newsroom/MediaAlerts/2003/2003102715109.html>
 - >Ledger Equirer
 - >Radio (Griffin) / Georgia Audio archived web site
- Outreach Information Dissemination on Plant Respiration Research sent to: Ascribe, The Public Interest Newswire <http://www.ascribe.org/cgi-bin/d?asid=20041028.053411> on ‘UGA Scientists believe sleeping plant’s “Breath” can indicate its health.’
 - The University of Georgia: News & Information
 - Gwinnett Chamber of Commerce.
 - On-going close efforts with Prof. Beasley at UGA-Tifton, on early peanut stress detection using nocturnal respiration flux measurements

Sources of Grants/amounts since 1999:

U.S. Dept. of Energy, NIGEC	\$399,145	1998-2001
NASA	\$ 18,000	1998-2001
Georgia Research Alliance	\$699,000	1999-2000
US Dept of Energy (NIGEC) (supplement)	\$ 8,500	1999-2000
US Forest Service	\$ 41,000	2000-2001
U.S. Dept. of Energy, Terrestrial Carbon Processes	\$649,000	2000-2002
U.S. Dept. of Energy, Terrestrial Carbon Processes	\$769,808	2000-2002
Peanut Foundation	\$ 41,000	2002-2003
USDA	\$ 35,000	03/01-08/01
U.S. Dept. of Energy NIGEC	\$465,000	2001-2004
U.S. Dept. of Energy, Terrestrial Carbon Processes	\$769,848	2001-2004
U.S. Dept. of Energy, Terrestrial Carbon Processes	\$645,237	2001-2004
Canadian Foundation for Climate & Atomsph. Sci.	\$256,340	2001-2004
National Peanut Board	\$ 21,000	2001-2002
EPD (part of a very large grant to GTech)	\$ 20,000	2002
International AI	\$ 29,980	2002
Hatch Project	\$ 3,000	2002-2006
Georgia Peanut Commission/National Peanut Board	\$ 14,000	2003-2005

U.S. Dept. of Energy, Western NIGEC region	\$420,000	2003-2006
U.S. Dept. of Energy, Terrestrial Carbon Processes (EOS)	\$ 73,000	2005-2006
U.S. Dept. of Energy, NIGEC	\$446,786	2004-2007
U.S. Dept. of Energy, Terrestrial Carbon Processes	\$601,000	2004-2007
U.S. Dept. of Energy, Terrestrial Carbon Processes	\$750,000	2004-2007
National Peanut Board	\$ 24,700	2005
U.S. Dept. of Energy, Terrestrial Carbon Processes	\$900,000	2006-2009

Contributions to Professional Service: (committee service to department, college, university, and/or professional societies)

President-Elect, International Society of Biometeorology 2002-2005
Vice-President, International Society of Biometeorology 1999-2002
Peer review of manuscripts, books, and grant proposals: 21 organizations, journals and granting agencies
Associate Editor: International Journal of Agricultural and Forest Meteorology (FYI: NO 1 journal in forestry and no. 3 in agriculture in terms of impact; no. 5 in atmospheric sciences) since 1995
Book Review Editor: International Journal of Agricultural and Forest Meteorology
Associate Editor: Canadian Journal of Soil Science (2000-2005)
Guest Editors: Four special issues, Agricultural and Forest Meteorology
Editorial Board Member: Agricultural and Forest Meteorology, since 1990 to present
Reviewer for the journal *Science*
UGA International Agriculture Advisory Council
UGA Post-Tenure Review Committee
UGA - Griffin Campus Awards Committee, 1998-2005
CAES - D. W. Brooks Award for Excellence, 2000
CAES Task Force Committee, Agro-Security, 2001-2002
International Organizing Committee, International Society of Biometeorology, 1996-2002
International Scientific Committee, International Society of Biometeorology, 1996-2005
Executive Board, 1996-2002
Head of the Study Groups, International Society of Biometeorology, 1996-2002
Head of Commissions Committee, International Society of Biometeorology, 2000-2002
International Advisory Scientific Committee, International Society of Biometeorology, 1999-2005
Vice-President, International Society of Biometeorology, 1999-2002
Chair of Award Committee, International Society of Biometeorology, 2001-2002
President-Elect, International Society of Biometeorology, 2002-2005
Co-Chair of the Study Group, International Society of Biometeorology, 2004-2005
ISB International Scientific Committee for the 17th International Congress of Biometeorology in Germany, International Society of Biometeorology, 2002-2005
ISB International Scientific Committee for the 16th International Congress of Biometeorology in Australia, International Society of Biometeorology 1999-2002
ISB International Scientific Committee for the 15th International Congress of Biometeorology in Slovenia International Society of Biometeorology 1996-1999
International Society of Biometeorology Award Committee, 1996-2002; Chair in 2001 - 2005.
Canadian Society of Agricultural Meteorology, Executive Board, 2001-2005
International Atomic Energy Agency (IAEA). Moisture Isotopes in the Biosphere and

Atmosphere (MIBA)

American Meteorological Society Scientific Session, Vancouver, Canada, Chairperson. August 2004.

National Science Team, U.S. Dept. of Energy, Terrestrial Carbon Processes, 2001-2006.

American Meteorological Society, Agricultural and Forest Meteorology Scientific and Steering Committee, 2006-

Center of Excellence Georgia Tech-University of Georgia, founding member

Georgia Carbon Registry Committee, 2004-2005

Technical Reports (15-25pp each report)

Technical Report to the US. Dept of Energy. Oct. 1999. Annual Report on the Turbulence/Tracer Experiment at the Florida AmeriFlux site. NIGEC report. 15pp

Technical Report to the US. Dept of Energy. Oct. 2000. Annual Report on the Turbulence/Tracer Experiment at the Florida AmeriFlux site. NIGEC report.

Technical Report to the US Dept of Energy. Oct. 2001. Annual Report on the advection study at the Florida AmeriFlux site. NIGEC report.

Technical Report to the US Dept of Energy. 2002. Second year report on the LES/tracer study at the Florida AmeriFlux site. TCP report.

Technical Report to the US Dept of Energy. Oct. 2002. Annual Report on the advection study at the Florida AmeriFlux site. NIGEC Report.

Technical Report to the US Dept of Energy. Oct. 2003. Annual Report on anomalies in fluxes at the Florida AmeriFlux site. NIGEC Report.

Technical Report to the US Dept of Energy. Oct. 2003. Annual Report on turbulence-diffusion inside plant canopies. TCP Report.

Technical Report to the US Dept of Energy. Oct. 2004. Annual Report on anomalies in vegetation fluxes at the Florida AmeriFlux site. NIGEC Report.

Technical Report to the US Dept of Energy. Terrestrial Carbon Processes. Annual Report on turbulence-tracer inside canopy experiment. 2004 TCP report.

Technical Report to the US Dept of Energy. Terrestrial Carbon Processes Oct. 2005. Annual Report tracer-in-canopy diffusion experiment. TCP report.

Conferences/workshops/special sessions organized:

Organizing a special session on multiple facets of odor from agricultural sources at the next International Congress of Biometeorology. Kansas City, USA. Oct 2002.

Co-organizing the International Congress of Biometeorology in Kansas City, USA in Oct. 2002.

Co-organized and co-hosted jointly with the University of Florida the NIGEC SouthEast Regional Workshop, US Dept of Energy. Nov. 2000, Gainesville, Fl. That workshop included the organization of a 4-day workshop including a 2-day closed door panel in addition to a 2-day paper presentation and site visits.

Co-organized the International Congress of Biometeorology in Sydney, Australia Nov. 1999.

Other Non-refereed materials: (articles in popular press, circulars)

1. 1-page article on the inside cover of Agricultural and Forest Meteorology (2000)
- 2 Article in the UGA Columns on the problems and challenges encountered in agricultural and environmental sciences and how Agricultural and Environmental Physics can help (2000)

Presidential/vice-Presidential Addresses/ Sessions Chaired at International, National and Regional Meetings:

Session Chair: Turbulence and Diffusion Conference. Conference of the American Meteorological Soc., San Diego, CA, May. 2006.

Session Chair: AsiaFlux Conference. Mount Fuji, Yamanashi Prefecture, Japan, August 2005

Session Chair: 26th Agricultural and Forest Meteorology. Conference of the American Meteorological Soc., April 2004.

Session Chair: 25th Agricultural and Forest Meteorology. Conference of the American Meteorological Soc., Virginia. Aug. 23rd. 2002.

ISB Presidential Address, Sydney Australia, 2002.

ISB Vice-Presidential Address to the Organizational Committees of Agricultural and Forest Meteorology, Aerobiology and Biometeorology and Urban Climatology. Aug. 22nd, Davis. CA

Session Chair: 24th Agricultural and Forest Meteorology. Conference of the American Meteorological Soc., Davis, CA Aug. 23rd. 2000.

Session Chair: Biometeorology and Urban Climatology at the Turn of the Millennium/ International Congress of Urban Climatology. 1999. Sydney, Australia. 13th-16th Nov.

3.3.4 Peer Review of Manuscripts, Books and Grant Proposals for:

Science (officially member of the review panel in 1993)
National Science Foundation: Meteorology Division
National Science Foundation: Climate Division
National Science Foundation: Hydrology
Netherlands Science and Technology Foundation

NSERC (National Science and Engineering Council of Canada)
NASA (Land Processes Branch; Earth Observing System; Hydrology)
Boundary-Layer Meteorology
Ecological Research
Global Change Biology
Ecological Applications
Tellus
Journal of Environmental Quality
Journal of Applied Meteorology
Journal of Oceanic and Atmospheric Technology
Utah Agricultural Experiment Station
Bulletin of the American Meteorological Society
Agricultural and Forest Meteorology
Landscape Ecology
Atmosphere-Ocean

Service on Professional Committees:

International:

Vice-President of the International Society of Biometeorology (1999-2002)
Nominated Chair the International Tromp Foundation Award Committee. 2001
(nomination pending)
Tromp Foundation Award Committee 1996-1999; 1999- present
International Student Award Committee, International Society of Biometeorology
1996-1999
Executive Board of the International Society of Biometeorology 1996-1999; 1999-2002.
International Scientific Committee. International Society of Biometeorology. 1996-1999;
1999-2002.
International Organizing Committee. International Society of Biometeorology. 1996-
1999
International Advisory Scientific Committee, International Society of Biometeorology,
1999-2002.
Head of the Study Groups. International Society of Biometeorology. 1996-present; 1999-
2002.
Head of Commissions. International Society of Biometeorology. 1999-2002
Councillor of the International Society of Biometeorology. 1996-1999.

College:

Dean's committee in agro-security. 2001-2003
Office of Global Programs Advisory Committee. 2004-2005
D. W. Brooks Award for Excellence. 2000 2001.

Department:

Dept. Head Hiring Committee 2000
Strategic Planning Committee 2001
Post-Tenure Review Committee John Beasley, Bob Carrow 2005
Assistant Research Scientist Evaluation and Promotion Committee 2005
Hiring Committee, Environmental Chemist Position, 2006

Griffin Campus:
Awards Committee. 1999, 2000,

Griffin Unit:
CSS- Awards – Griffin Unit 2001, 2002, 2003, 2004

Further evidence of intellectual leadership:

Dozens of invited seminars at research centers, laboratories and universities worldwide including BATTELLE Pacific Northwest Lab, NCAR, Georgia Tech, Yale and Harvard. Standing invitation to give talk to INRA, Thivernal-Grignon, in France, and at University of California at Berkeley, at the CSIRO Australia.

Host to visiting scientists and national and international guests since 1999:

Professor R. Reck, Dept. Land, Air And Water Resources, University of California, Davis
Professor Joon Kim, Yonsei University, Korea
Dr. Andrey Sogachev, University of Helsinki, Finland
Professor Timo Vesala, University of Helsinki, Finland
Dr. Martti Heikinheimo, Director, Weather Services, Finnish Meteorological Institute
Professor Mike Binford, Dept. Geography, University of Florida
Professor Ian Strachan, Natural Resources Dept., McGill University
Dr. George Hendrey, Queen's University
Dr. Russ Dietz, Brookhaven Nacional Laboratory
Dr. Dave Hollinger, USDA, Durham, NH
Professor Stathis Michaelides, Tulane University, 2005
Dr. Selma Orivaldo, CIMEPAR, Curitiba, Brazil, 2005
Dr. Daniel Cooper, Los Alamos National Laboratory, Los Alamos, New Mexico
Professor Zhu Tong, Chair, Environmental Sciences, Peking University, China
Professor Alejandro Zermeno Gonzales, Dep.. Head, Dep.. Agronomy, University Antonio-Narro, Mexico, 2002-2003.
Dr. Tom Denmead, CSIRO, Australia. Nov. 2002.
Natalie Mathieu and Laura Witterbol, McGill University 2002
Professor Thomas Foken, Bayreuth University, Bayreuth, Germany 2002, 2003, 2004
Dr. Karsten Baumann, Georgia Institute of Technology, Atlanta 2002.
Dr Elisabeth Pattey. 2000. Dr Pattey is a senior scientist with AgricultureCanada.
Professor Michael Savage. 2000. Dr Shen is Director of the School of Applied Environmental Sciences., Natal University, South Africa (12 months)
Professor Erich Mursch and coll., 2000, 1999, 1999. Dr Mursch is an Associate Professor at the University BodenKultur (Technical University). Dept of Mathematics and Physics.
Dr Shaohua Shen, 1999. Dr Shen is a visiting professor at North Carolina State University in Atmospheric Sciences..
Mr James Thurman, 1999. Mr Thurman is a junior scientist at North Carolina State University, Raleigh, NC.

Languages Written and Spoken Fluently:

French
Spanish
Italian
English

Goals for the Next Five Years:

Raise the profile of the Dept. of Crop and Soil Sciences at UGA to where it is on par with top comparable schools nationally produce high-impact science.