

Curriculum Vitae

Yuh-Lang Lin, PhD

Professor

302H Gibbs Hall

Department of Physics and

Department of Ener. & Env. Sys.

N. C. A&T State University (NCAT)

1601 E. Market St., Greensboro, NC 27411

336-285-2127 (O); ylin@ncat.edu; <http://mesolab.ncat.edu>

Education

Ph.D.: Yale University, Meteorology and Geophysical Fluid Dynamics, 1984

M.S.: South Dakota School of Mines and Technology, Meteorology, 1979

M.A.: Fordham University, New York, Mathematics, 1978

B.S.: Fu Jen Catholic University, Taiwan, Mathematics, 1976

Areas of Research Interest

- Mesoscale Dynamics and Modeling
 - Mountain Meteorology
 - Storm Dynamics and Moist Convection
 - Gravity Waves and Turbulence
 - Forest Fire Dynamics
 - Mars Atmosphere Modeling
- Tropical Cyclone and Tropical Wave Dynamics
- Cloud Microphysics and Dynamics
- Regional Climate Dynamics

Professional Experience

08 – Present: Senior Scientist & Professor, Department of Physics; Department of Energy & Environmental Systems (EES)

08 – 12: Chief scientist for the NOAA ISET Center

11 – 16: Graduate Faculty, Department of Civil and Environmental Engineering, Duke University (Term membership: 11/1/11 – 11/30/16)

98 – 07: Professor, Department of Marine, Earth, and Atmos. Sci. (MEAS), North Carolina State University (NCSU)

93 – 98: Associate Professor, MEAS, NCSU

87 – 93: Assistant Professor, MEAS, NCSU

84 – 87: Drexel Fellow, Department of Physics and Atmospheric Science, Drexel University

83 – 84: Postdoctoral Associate, Department of Geology and Geophysics, Yale University

82 (su): Predoctoral Fellow, NATO Advanced Study Program on Mesoscale Meteorology

80 – 83: Research/Teaching Assistant, Department of Geology & Geophysics, Yale University

78 – 79: Research Assistant, Department of Meteorology, S. D. School of Mines & Technology

76 – 78: Teaching Assistant, Department of Mathematics, Fordham University

List membership(s) in professional organizations

American Meteorology Society 1979-

Sigma Xi 1982-

North America Taiwanese Professors' Association	1993-
American Geophysical Union	2007-
American Physics Society	2008-

Synergistic Activities

Associate Editor, *Frontiers in Earth Science*

Editor, *Open Physics*

Coordinating research among 31 PIs in 7 partner universities as the chief scientist for NOAA ISET Center (2008-12)

Formed an Atmospheric Modeling Group for the NOAA ISET Center and established a real-time forecasting system (NCAST)

Published an advanced graduate textbook – “*Mesoscale Dynamics*” (Cambridge University Press, 2007, 630pp)

Helped developing the cloud microphysics parameterization of Lin-Farley-Orville scheme (Lin, Farley and Orville 1983; also known as Lin et al. scheme), is a pioneering scheme and well received and further developed into various versions or schemes that have been implemented in many cloud, mesoscale, and global atmospheric and climate models for simulating grid-explicit precipitation.)

Graduate faculty of Duke University – served on a PhD student’s committee

Senior Research Award, College of Arts & Sciences, NC A&T State University

Foreign Advisor, Central Weather Bureau, Taipei, Taiwan

Served as a leader in the UNC Tomorrow Global Warming Task Force, 2008

Review Panel, National Environmental Research Council, UK, 2006-07

Board member, PhD program development committee, Addis Ababa University, Ethiopia

External examiner for a PhD student’s dissertation defense, Addis Ababa University, Ethiopia

Conducted a large number of funded research for funding agencies (see Appendix A for details)

Published more than 100 peer-reviewed journal papers (see Appendix B for details)

Delivered more than 300 conference presentations and invited talks nationally and internationally (see Appendix C for details)

Editor, *East Asian Journal of the Atmospheric Sciences* (2007-11)

Chaired a large number of sessions for national and international conferences

Member, Steering Committee of the Terrain-induced Monsoon Rain Experiment (TiMREX, 2007)

NASA award for "Turning Goals into Reality" for outstanding contribution to Aircraft Vortex Spacing System (AVOSS) Team and exceptional progress toward revolutionizing aviation by increasing capacity while maintaining a high degree safety, 2003.

Award for Collaboration with Raleigh Office, National Weather Service, 2002

AMS Mesoscale Conference Committee, 2001-04

Scientific Committees, East Asian Mesoscale Conferences (1999-Korea; 2001-Taiwan; 2002-Japan)

President, North America Taiwanese Professors' Association, 1996-97

Served as a co-organizer (with Dr. P. Arya) of the Seventh Southeast Conference on Geophysical Fluid Dynamics, 1990

Participated in field programs: TiMREX, T-REX, MAP, AMMA, TAMEX, and GALE

Reviewed a large number of papers for JAS, MWR, Wea. Forec., JAM, QJRMS, Tellus,

Meteor. Atmos. Phys., JGR, Tellus, GRL, Ocean and Atmos., Terr. Atmos. Ocean, Atmos. Res., etc.

Reviewed a large number of grant proposals for NSF, ONR, AFOSR, NASA, NOAA, EPA, NCAR, NCSC, etc.

Chaired a large number of sessions for national and international conferences

Teaching Experience

Courses Taught:

(a) Undergraduate:

NCAT: College Phys II; Atmospheric Thermodynamics; Atmospheric Dynamics I, II; Weather Systems

NCSU: Air Processes & Motion I, II; Atmospheric Thermodynamics I, II; Atmospheric Dynamics I, II

Drexel U.: General Physics I; FORTRAN Programming

(b) Graduate:

NCAT: Dynamic Meteorology; Numerical Weather Prediction; Tropical Meteorology; Mountain Meteorology; Storm Dynamics; Graduate Seminar; EES Doctoral Seminar

NCSU: Dynamic Meteorology; Mesoscale Modeling; Mesoscale Dynamics; Mesoscale Wave Dynamics; Numerical Weather Prediction; Advanced Physical Meteorology

Students advised and postdoctoral scholars sponsored

Postdocs and Graduate Students:

[NCAT]

Postdocs: Yong Jung

Ph.D. Graduates: Yi-Chih Huang, James Spinks, Galen Smith

M.S. Graduates: [Math] James Spinks (Co-Chair), Wilson Jones (Co-Chair); [Phys] Ian Colon-Pagan, Cristina Carrasco, Jose Garcia-Rivera, Stephany Taylor, Patrick Pete, Adrian Santiago, Nimrod Micael, Raymond Ruiz, Aaron Bailey, Justin Riley; [CSE] Van Ngyuen

B.S. Graduates (as research advisor): Justin Riley, Percy Williams, Cameron Anderson

[Current Students]

Ph.D. Students: [EES] C. Baber, J. Spinks, G. Smith, P. Pete, S. Taylor, R. Rostom, J. Garcia-Rivera, G. Sever, A. Bailey; [CSE] V. Ngyuen

M.S. Students: Percy Williams, Britney Hamilton, William Agyakwah

Undergraduates: [ASME] Shekia Brower, Quincey Moffitt, Mycah Edwards, Zainab Ali

[NCSU]

Postdocs: Dave Schowalter, Ronald P. Weglarz, S. Shen, C.-T. Kao, Jongil Han, Joseph J. Charney, Bo-Wen Shen, Xuejin Zhang

Ph.D. Graduates: H.-Y. Chun, N.-H. Lin, R. P. Weglarz, J. Wang, T.-A. Wang,

R. A. Rozumalski, J. Egentowich, J. Han, C.-M. Chu,

F. Ding, B.-W. Shen, D. A. DeCroix, J. Egentowich, K. D. Pfeiffer, S. Chiao,

J. Cetola, J. A. Thurman, H. D. Reeves

M.S. Graduates: J. Grovestein, B. Burns, J. Anderson, T.-A. Wang, I.-C. Jao, M. S. Kulie,

R. L. Deal, D. W. Hamilton, D. Felton, J. D. Shaltanis, L. Joyce, K. Contre, S.

Baker (Co-Chair), K. M. Lux, S.-Y. Chen, C. M. Hill, S. Slussers, N. C.

Witcraft, K. E. Robertson, M. T. Kiefer, A. M. Hoggarth, P. Suffern, C. Huang,

Z. Brown, M. Silverman

B.S. Graduates (as research advisor): Robbie Berg, Jeff Lin, Carl Schreck, Leigh Jones, Barrett Smith, Crosby Savage, Christian Cassell, Carrie Larsen, Tyner Bryce, Chu-Che Liu, Ting-Yen Huang

Sponsored Research: Conducted a relatively large number of research projects for various funding agencies (to be provided upon request)

List of Publications

- (A) **Books and Refereed Journal Papers** (see **Appendix A** for a complete list or <http://mesolab.ncat.edu> => publication)
- (i) **Book: Lin, Y.-L., 2007:** Mesoscale Dynamics, Cambridge University Press, 630pp.
- (ii) **Citations of refereed journal papers (by 8/24/15): 5177 (All), 2326 (since 2010)**
(based on [Google Scholar Citation](#))
- (B) **Conference Preprints, Abstracts, and Presentations** (Delivered more than 350 presentations in national and international conferences and invited talks; to be provided upon request)