

Biographical Sketch - Larry Mahrt

A. Vital Statistics:

Present Position: Senior Research Scientist
NorthWest Research Associates

B. Education

B.S. (1967) - Meteorology, University of Wisconsin
Ph.D. (1972) - Meteorology (Minor: Mathematics), University of Wisconsin

C. Professional Employment

1971-1972: Postdoctoral fellow, Advanced Study Program, National Center for Atmospheric Research, Boulder, Colorado.
1972 - 2004: Professor, College of Oceanic and Atmospheric Sciences, Oregon State University, Corvallis, Oregon.
2004 - present: Professor Emeritus, College of Oceanic and Atmospheric Sciences, Oregon State University, Corvallis, Oregon.
2004 - present: Senior Research Scientist, NorthWest Research Associates, Corvallis, OR.

D. Other Employment

2013: Research Scientist, University of Stockholm
2010: Research Scientist, University of Stockholm
2009: Research Scientist, Universitat de les Illes Balears, Spain
2002: Research Scientist, University of Uppsala, Sweden
1996: Research Scientist, Land Resources Research Centre, Agriculture Canada
1995: Research Scientist, Risø National Laboratory, Denmark

1995: Research Scientist, European Centre, Reading

1992 - : Affiliate Scientist, MMM, National Center for Atmospheric Research, USA
1988: Research Scientist. Geofysisk Institutt, Universitet Bergen and the Bergen Scientific Centre.
1980: Research Scientist, EERM, Paris
1979-1980: Research Scientist, Risø National Laboratory, Denmark
1977: Research Scientist, Risø National Laboratory, Denmark
1974-1975: Research Scientist, National Center for Atmospheric Research, Boulder, Colorado.

E. Publications in refereed journals

- 1970: Mahrt, L. and W. Schwerdtfeger: Ekman spirals for exponential thermal wind, Boundary-Layer Meteor., 1, 137-145.
- 1972: Mahrt, L.: A numerical study of advective accelerations in an idealized low latitude planetary boundary layer, J. Atmos. Sci., 29, 1477-1484.
- 1972: Mahrt, L.: A numerical study of coupling between the boundary layer and free atmosphere in an accelerated low latitude flow, J. Atmos. Sci., 29, 1485-1495.
- 1973: Mahrt, L.: A relationship of the Reynolds Stress to local shear and heat fluxes in the planetary boundary layer, J. Atmos. Sci., 30, 1577-1583.

- 1974: Mahrt, L.: Time dependent, integrated planetary boundary layer flow, *J. Atmos. Sci.*, 31, 457-464.
- 1975: Mahrt, L.: Comments on "A Simulative model of dryline motion," *J. Atmos. Sci.*, 32, 635-636.
- 1975: Mahrt, L.: The influence of momentum advection on a well-mixed layer, *Quart. J. Roy. Meteor. Soc.*, 101, 1-11.
- 1976: Mahrt, L. , and D.H. Lenschow: Growth dynamics of the convectively mixed layer, *J. Atmos. Sci.*, 33, 41-45.
- 1976: Mahrt, L. and S.-U Park: The influence of boundary layer pumping on synoptic-scale flow, *J. Atmos. Sci.*, 33, 1505-1520.
- 1976: Mahrt, L.: Mixed layer moisture structure, *Mon. Wea. Rev.*, 104, 1403-1407.
- 1977: Mahrt, L.: The influence of low level environment on severe moist convection, *Mon. Wea. Rev.*, 205, 1315-1329.
- 1979: Mahrt, L.: Penetrative convection at the top of the growing boundary layer, *Quart. J. Roy. Meteor. Soc.*, 205, 469-485.
- 1979: Park, S.-U. and L. Mahrt: Oscillating stratified boundary layers driven by surface heating, *Tellus*, 31, 254-268.
- 1979: Mahrt, L.: Comments on "Determining height of the nocturnal boundary layer," *J. Appl. Meteor.*, 18, 383.
- 1979: Andre, J.-C. , P. Lacarrere, and L. Mahrt: Sur la distribution vertical de l'humidity dans une couche limite convective, *J. de Recherches Atmospheriques*, 12.
- 1979: Mahrt, L., R.C. Heald, D.H. Lenschow, B.B.Stankov, and Ib Troen: An observational study of the structure of the nocturnal boundary layer, *Boundary-Layer Meteor.*, 17, 247-264.
- 1979: Lenschow, D.H., B.B. Stankov, and L. Mahrt: The rapid morning boundary layer transition, *J. Atmos. Sci.*, 36, 2108-2124.
- 1980: Mahrt, L.: Comment on "Gravity Flow over a snow patch," *J. Meteor. Soc. Japan*, 58, 93.
- 1980: Mahrt, L., S. Larsen, and S.-E. Gryning: Studier af faldvinde paa Riso, *Vejret*, 2, 26-28.
- 1981: Mahrt, L. and D.A. Pierce: Relationship of moist convection to boundary layer properties: Application to a semi arid region, *Mon. Wea. Rev.*, 108, 92-96.
- 1981: Heald, R.C. and L. Mahrt: Diurnal variation of wind shear, *J. Appl. Meteor.*, 20, 859-867.
- 1981: Mahrt, L.: The early evening boundary layer transition, *Quart. J. Roy. Meteor. Soc.*, 107, 329-343.
- 1981: Mahrt, L.: Modelling the depth of the nocturnal boundary layer, *Boundary-Layer Meteor.*, 21, 3-19.
- 1981: Barber, D.A. and L. Mahrt: A statistical study of dependence of hailstorm severity on environmental conditions, *Mon. Wea. Rev.*, 108, 1348-1352.
- 1981: Mahrt, L.: Circulations in a sheared inversion layer at the mixed layer top, *J. Meteor. Soc. Japan*, 59, 238-241.
- 1981: Smith, B. and L. Mahrt: A study of boundary-layer pressure adjustments, *J. Atmos. Sci.*, 38, 334-346.

- 1981: Heald, R. and L. Mahrt: The dependence of boundary-layer shear on diurnal variation of stability, *J. Appl. Meteor.*, 20, 859-867.
- 1982: Mahrt, L. and S. Larsen: Small scale drainage front, *Tellus*, 34, 579-587.
- 1982: Mahrt, L. and J. Paumier: Cloud-top entrainment instability observed AMTEX, *J. Atmos. Sci.*, 39, 622-634.
- 1982: Andre, J.-C. and L. Mahrt: The nocturnal surface inversion and influence of clear air radiative cooling, *J. Atmos. Sci.*, 39, 864-878.
- 1982: Deardorff, J. and L. Mahrt: On the dichotomy in theoretical treatments of the atmospheric boundary layer, *J. Atmos. Sci.*, 39, 2096-2098.
- 1982: Mahrt, L.: Momentum balance of gravity flows, *J. Atmos. Sci.*, 39, 2701-2711.
- 1982: Mahrt, L., J.-C. Andre, and R. Heald: On the depth of the nocturnal boundary layer, *J. Appl. Meteor.*, 20, 90-92.
- 1983: Mahrt, L. and R.C. Heald: Nocturnal surface temperature distribution as remotely sensed from low-flying aircraft, *J. Agric. Meteor.*, 28, 99-107.
- 1983: Mahrt, L. and J.-C. Andre: On the stratification of turbulent mixed layers, *J. Geophys. Res.*, 88, 2662-2666.
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- 1984: Mahrt, L. and M. Ek: The influence of atmospheric stability on potential evaporation, *J. Climate and Appl. Meteor.*, 23, 222-234.
- 1984: Mahrt, L. and H.-L. Pan: A two-layer model of soil hydrology, *Boundary-Layer Meteor.*, 29, 1-20.
- 1984: Mahrt, L. and J. Paumier: Heat transport in the atmospheric boundary layer, *J. Atmos. Sci.*, 41, 3061-3075.
- 1985: Paumier, J. and L. Mahrt: Simple formulation of heat flux in the unstable atmospheric boundary layer. *Boundary-Layer Meteor.*, 33, 61-75.
- 1985: Mahrt, L.: Comment on "Cumulus cloud transport of transient tracers", *J. Geophys. Res.*, 90, 2433.
- 1985: Gryning, S.E., L. Mahrt, and S. Larsen: Oscillating nocturnal slope flow in a coastal valley, *Tellus*, 37A, 196-203.
- 1985: Mahrt, L.: Vertical structure and turbulence in the very stable boundary layer, *J. Atmos. Sci.*, 42, 2333-2349.
- 1986: Mahrt, L.: On the shallow motion approximation, *J. Atmos. Sci.*, 43, 1036-1044.
- 1986: Mahrt, L., C. Berthou, P. Marquet, and J.-C. Andre: Time-averaging the flux-profile relationship, *Annales Geophysicae*, 4, 411-416.
- 1986: Mahrt, L.: Turbulence over the coastal range of Yugoslavia, *Zbornik Meteoroloskih i Hidroloških Radova*, 11, 46-49.
- 1986: I. Troen and L. Mahrt: A simple boundary-layer model and its sensitivity to surface evaporation, *Boundary-Layer Meteorology*, 37, 107-128.
- 1987: H.-L. Pan and L. Mahrt: Interaction between soil hydrology and boundary-layer development. *Boundary-Layer Meteorology*, 38, 185-202.

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- 1989 Mahrt, L.: Intermittency of atmospheric turbulence. J. Atmos. Sci., 46, 1-17.
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