CURRICULUM VITAE

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PERSONAL

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EDUCATION

Ph.D.	1987	Institute of Geophysics, Polish Academy of Science, Warsaw, Poland (Ph.D. dissertation: "Mechanisms of precipitation redistribution in complex terrain", in Polish)
M.S.	1981	Department of Physics, University of Warsaw, Poland (M. S. thesis: "Investigation of cloud and fog droplets by the holographic method", in Polish)

SCIENTIFIC INTERESTS

Geophysical fluid dynamics and cloud physics in general; numerical modeling; numerical methods for fluid dynamics; moist convection; turbulence; small-scale dynamics; cloud microphysics and its parameterization; convection and its interaction with radiative, surface, and large–scale processes; role of clouds in the climate system.

PROFESSIONAL EXPERIENCE

2005–present	Senior Scientist, Mesoscale and Microscale Meteorology Division, National Center for Atmospheric Research, Boulder, Colorado.
2000–2005	Scientist III, Mesoscale and Microscale Meteorology Division, National Center for Atmospheric Research, Boulder, Colorado.
1996–2000	Scientist II, Mesoscale and Microscale Meteorology Division, National Center for Atmospheric Research, Boulder, Colorado.
1993–1996	Scientist I, Mesoscale and Microscale Meteorology Division, National Center for Atmospheric Research, Boulder, Colorado.
1989–1993	Visiting Scientist, Mesoscale and Microscale Meteorology Division, National Center for Atmospheric Research, Boulder, Colorado.
1987–1989	Postdoctoral Fellow, Advanced Study Program, National Center for Atmospheric Research, Boulder, Colorado.
1986–1987	Research Fellow, Institute of Geophysics, Polish Academy of Science, Warsaw, Poland
1983–1986	Graduate Research Assistant (Ph.D. Program), University of Warsaw and Polish Academy of Science, Poland
1981–1983	Research Assistant, Division of Atmospheric Physics, Institute of Meteorology and Water Management, Warsaw, Poland

HONORS AND AWARDS

2011	*J. Atmos. Sci.* Editor's Award
2010	Fellow, Royal Meteorological Society (FRMetS), UK
2005	Royal Meteorological Society Reviewer Award
1999	Habilitation (D.Sc.), Institute of Geophysics, Polish Academy of Sciences, Warsaw, Poland
1999	NCAR/MMM Outstanding Paper of the Year Award
1995	NCAR Publication Award nominee

OTHER ACTIVITIES

2012	NCAR Science Advisor
2012	Organizer and co-chair of the 3rd EULAG model workshop, (June, Loughborough, UK); 8th International Cloud Modeling Workshop (July, Warsaw, Poland); and NCAR/GTP workshop on multiphase turbulent flows (August, Boulder, USA).
2012–present	Affiliate Professor, University of Warsaw, Warsaw, Poland
2012–present	Editor, *Journal of the Atmospheric Sciences*
2011–present	Member of the NCAR Scientists' Assembly (NSA) Executive Committee
2010–present	International Collaborator, Australian Centre of Excellence in Climate System Science
2008–2011	Associate Editor for *The Journal of Advances in Modeling Earth Systems (JAMES)*
2008–2009	CNRM Meteo-France Visiting Fellow, Toulouse, France.
2006–2011	Associate Editor for *Journal of the Atmospheric Sciences*
2006–2010	Board of Directors, Canadian Cloud-Aerosol Feedbacks and Climate (CAFC) Network
2005	Guest Editor, 14th International Conference on Clouds and Precipitation Special Issue of *Atmospheric Research*
2004	Organizer and co-chair of the International Cloud Modeling Workshop, Hamburg, Germany
2004	Guest Editor, EUROCS Special Issue of *Quarterly Journal of the Royal Meteorological Society*
2003–present	Member of the Editorial Board of *Acta Geophysica*
2002–2005	Affiliate Faculty, Colorado State University

2001–present	Adjoint Professor of Mechanical Engineering, University of Delaware
2001–2004	Chair, Working Group 4 (Precipitating Convective Cloud Systems), GEWEX (Global Energy and Water-cycle Experiment) Cloud System Study
2001–2008	Associate Editor for *Quarterly Journal of the Royal Meteorological Society*
2001–present	Member of the Geophysical Turbulence Program, NCAR
2000–2008	Member of the International Commission on Clouds and Precipitation (ICCP), International Association of Meteorology and Atmospheric Sciences (IAMAS), International Union of Geodesy and Geophysics (IUGG)
2000–present	Associate Editor for *Atmospheric Science Letters*
1999–2001	MMM Seminar coordinator
1995–1998	Member of the Committee on Cloud Physics of the American Meteorological Society
1981–present	Invited speaker and participant in numerous international and national conferences and workshops in the fields of geophysics, numerical modeling, cloud physics, cloud modeling, tropical meteorology, turbulence and diffusion, forecasting and nowcasting (North and South America, Europe, Asia, Australia)

PUBLICATIONS

(Refereed)

Grabowski, W. W., 1983: Measurement of the size and position of aerosol droplets using holography, *Optics Laser Tech.*, 199–205.

Grabowski, W. W., 1985: On the influence of microphysics parameterization on the rainfall rates in numerical models of clouds, *Pure Appl. Geophys.*, **123**, 941–950.

Grabowski, W. W., 1988: On the bulk parameterization of snow and its application to the quantitative studies of precipitation growth, *Pure Appl. Geophys.*, **127**, 79–92.

Grabowski, W. W., 1989: On the influence of small scale topography on precipitation, *Quart. J. Roy. Met. Soc.*, **115**, 633–650.

Grabowski, W. W., 1989: Numerical experiments on the dynamics of the cloud-environment interface: small cumulus in a shear-free environment, *J. Atmos. Sci.*, **46**, 3513–3541.

Smolarkiewicz, P. K. and W. W. Grabowski, 1990: The multidimensional positive definite advection transport algorithm: Nonoscillatory option, *J. Comput. Phys.*, **86**, 355–375.

Grabowski, W. W. and P. K. Smolarkiewicz, 1990: Monotone finite difference approximations to the advection-condensation problem, *Mon. Wea. Rev.*, **118**, 2082–2097.

Grabowski, W. W. and T. L. Clark, 1991: Cloud-environment interface instability: Rising thermal calculations in two spatial dimensions. *J. Atmos. Sci.*, **48**, 527–546.

Brenguier, J-L. and W. W. Grabowski, 1993: Cumulus entrainment and cloud droplet spectra: A numerical model within a two-dimensional dynamical framework. *J. Atmos. Sci.*, **50**, 120–136.

Grabowski, W. W. and T. L. Clark, 1993: Cloud-environment interface instability, Part II: Extension to three spatial dimensions. *J. Atmos. Sci.*, **50**, 555–573.

Grabowski, W. W. and T. L. Clark, 1993: Cloud-environment interface instability, Part III: Direct influence of environmental shear. *J. Atmos. Sci.*, **50**, 3821–3828.

Grabowski, W. W., 1993: Cumulus entrainment, fine-scale mixing and buoyancy reversal. *Quart. J. Roy. Met. Soc.*, **119**, 935–956.

Grabowski, W. W., and H. Pawłowska, 1993: Entrainment and mixing in clouds: the Paluch mixing diagram revisited. *J. Appl. Meteor.*, **32**, 1767–1773.

Grabowski, W. W., 1995: Entrainment and mixing in buoyancy reversing convection with applications to cloud-top entrainment instability. *Quart. J. Roy. Met. Soc.*, **121**, 231–253.

Grabowski, W. W. and P. K. Smolarkiewicz, 1996: On two-time-level semi-Lagrangian modeling of precipitating clouds. *Mon. Wea. Rev.* **124**, 487–497.

Grabowski, W. W., M. W. Moncrieff, and J. T. Kiehl, 1996: Long-term behavior of precipitating tropical cloud systems: a numerical study. *Quart. J. Roy. Met. Soc.*, **122**, 1019–1042.

Grabowski, W. W., X. Wu, and M. W. Moncrieff, 1996: Cloud resolving modeling of tropical cloud systems during Phase III of GATE. Part I: Two–dimensional experiments. *J. Atmos. Sci.* **53**, 3684–3709.

Vaillancourt, P. A., M. K. Yau, and W. W. Grabowski, 1997: Upshear and downshear evolution of cloud structure and cloud properties. *J. Atmos. Sci.* **54**, 1203–1217.

Malinowski, P. S., W. W. Grabowski, 1997: Local increase in concentration of cloud droplets and water content resulting from turbulent mixing. *J. Tech. Phys.* **38**, 397–406.

Szumowski, M. J., W. W. Grabowski, and H. T. Ochs, 1998: Simple two–dimensional kinematic framework designed to test warm rain microphysical models. *Atmos. Res.* **45**, 299–326.

Wu, X., W. W. Grabowski, and M. W. Moncrieff, 1998: Long–term behavior of cloud systems in TOGA COARE and their interactions with radiative and surface processes. Part I: Two–dimensional modeling study. *J. Atmos. Sci.*, **55**, 2693–2714.

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Grabowski, W. W., 1998: Toward cloud resolving modeling of large–scale tropical circulations: A simple cloud microphysics parameterization. *J. Atmos. Sci.*, **55**, 3283–3298.

Grabowski, W. W., and P. Vaillancourt, 1999: Comments on "Preferential concentration of cloud droplets by turbulence: effects on the early evolution of cumulus cloud droplet spectra" by Shaw et al. *J. Atmos. Sci.*, **56**, 1433–1436.

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Grabowski, W. W., 1999: A parameterization of cloud microphysics for long–term cloud–resolving modeling of tropical convection. *Atmos. Res.*, **52**, 17–41.

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Wang, L.-P., O. Ayala, S. E. Kasprzak, and W. W. Grabowski, 2005: Theoretical formulation of collision rate and collision efficiency of hydrodynamically-interacting cloud droplets in turbulent atmosphere. *J. Atmos. Sci.*, **62**, 2433-2450.

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Grabowski, W. W., 2006: Comments on "Preliminary tests of multiscale modeling with a two-dimensional framework: sensitivity to coupling methods" by Jung and Arakawa. *Mon. Wea. Rev.*, **134**, 2021-2026.

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Grabowski, W. W., 2006: Indirect impact of atmospheric aerosols in idealized simulations of convective-radiative quasi-equilibrium. *J. Climate*, **19**, 4664-4682.

Wang, L.-P., Y. Xue, O. Ayala, and W. W. Grabowski, 2006: Effects of stochastic coalescence and air turbulence on the size distribution of cloud droplets. *Atmos. Res.*, **82**, 416-432.

Wang, L.-P., O. Ayala, Y. Xue, and W. W. Grabowski, 2006: Comments on "Droplets to drops by turbulent coagulation" by Riemer and Wexler. *J. Atmos. Sci.*, **63**, 2397-2401.

Pawlowska, H., W. W. Grabowski, and J.-L. Brenguier, 2006: Observations of the width of cloud droplet spectra in stratocumulus. *Geophys. Res. Lett.*, **33**, L19810, doi:10.1029/2006GL026841.

Andrejczuk, M., W. W. Grabowski, S. P. Malinowski, and P. K. Smolarkiewicz, 2006: Numerical simulation of cloud-clear air interfacial mixing: Effects on cloud microphysics. *J. Atmos. Sci.*, **63**, 3204-3225.

McFarlane, S. A., and W. W. Grabowski, 2007: Optical properties of shallow tropical cumuli derived from ARM ground-based remote sensing. *Geophys. Res. Lett.*, **34**, L06808, doi:10.1029/2006GL028767.

Barstad, I., W. W. Grabowski, and P. K. Smolarkiewicz, 2007: Characteristics of large-scale orographic precipitation: evaluation of linear model in idealized problems. *J. Hydrology*, **340**, 78-90.

Wang, L.-P., O. Ayala, and W. W. Grabowski, 2007: Effects of aerodynamic interactions on the motion of heavy particles in a bidisperse suspension. *J. Turbulence*, doi:10.1080/14685240701233426.

Morrison, H., and W. W. Grabowski, 2007: Comparison of bulk and bin warm rain microphysics models using a kinematic framework. *J. Atmos. Sci.*, **64**, 2839-2861.

Grabowski, W. W., 2007: Representation of turbulent mixing and buoyancy reversal in bulk cloud models. *J. Atmos. Sci.*, **64**, 3666-3680.

Ayala, O., W. W. Grabowski, and L.-P. Wang, 2007: A hybrid approach for simulating turbulent collisions of hydrodynamically-interacting particles. *J. Comput. Phys.*, **225**, 51-73.

Wang, L.-P., Y. Xue, and W. W. Grabowski, 2007: Bin integral method for solving the kinetic collection equation. *J. Comput. Phys.*, **226**, 59-88.

Morrison, H., and W. W. Grabowski, 2008: Modeling supersaturation and subgrid-scale mixing with two-moment bulk warm microphysics. *J. Atmos. Sci.*, **65**, 792-812.

Grabowski, W. W., and H. Morrison, 2008: Toward the mitigation of spurious cloud-edge supersaturation in cloud models. *Mon. Wea. Rev.*, **136**, 1224-1234.

Xue, Y., L.-P. Wang, and W. W. Grabowski, 2008: Growth of cloud droplets by turbulent collision-coalescence. *J. Atmos. Sci.*, **65**, 331-356.

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Wang, L.-P., O. Ayala, B. Rosa, and W. W. Grabowski, 2008: Turbulent collision efficiency of cloud droplets. *New J. Phys.*, **10**, 075013, doi:10.1088/1367-2630/10/7/075013.

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