

Curriculum Vitae: Edwin D. Waddington

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Education:

- B.Sc. Physics University of Toronto 1971.
- M.Sc. Physics University of Alberta 1973. Thesis Title: *Numerical seismograms by the Cagniard de Hoop method for core diffraction problems*. Advisor: C.H. Chapman
- Ph.D. Geophysics University of British Columbia 1981. Thesis Title: *Accurate modelling of glacier flow*. Advisor: G.K.C. Clarke

Positions held:

- Post-doctoral fellow, University of British Columbia, 1982.
- I.W. Killam Post-doctoral fellowship from U.B.C. at U.W., 1983-1984.
- Research Associate, Geophysics Program, U. of Washington, 1985-1990.
- Senior Research Associate, Geophysics Program, U. of Washington, 1990.
- Research Associate Professor, Geophysics Program, U. of Washington 1991-June 1998.
- Research Professor, Geophysics Program, U. of Washington June-Sept. 1998.
- Acting Professor, Geophysics Program, U. of Washington Sept. 1998-Sept. 1999.
- Adjunct Professor, Quaternary Research Center, U. of W., 1999-present.
- Professor, Geophysics Program, (now part of Dept. of Earth and Space Sciences), U. of W. Sept. 1999-present.

Teaching:

- Earth and Space Sciences 411/511: *Geophysical Continuum Mechanics*.
- Earth and Space Sciences 311 *Geomechanics*.
- Earth and Space Sciences 431: *Principles of Glaciology*.
- Earth and Space Sciences 203: *Glaciers and Global Change*.
- Earth and Space Sciences 590: *Mass and Heat Flow Modeling with Finite Volumes*.
- Earth and Space Sciences 595: *Graduate Seminars on current glaciological topics*.
- Honors Arts and Science 222: *Ice Ages, Climate Change, and Scientific Paradigms*.

University of Washington Service:

- Program on Climate Change, board member representing ESS 2000-2003 and 2007-present.
- 2001 coordinator for Mindlin Lecture.
- ESS Graduate Admissions, 2001, co-Chair 2002, ex-officio 2005-present.
- ESS Curriculum Committee, 2001-2002.
- ESS Tenure and Promotion 2002-2003.
- ESS Development of a Liberal Arts BA (2003-2004).
- ESS Teaching and Learning Assessment (Chair), 2004-2006.
- ESS Hiring Priorities, 2006.
- ESS Graduate Program Coordinator (GPC), 2004-present.

Scientific Community Service:

- AGU Committee on Snow, Ice and Permafrost, 1990-1993.
- Ice Core Working Group, 1991-1995.
- NRC Polar Research Board Committee on Glaciology, 1992-1995.
- CRARY Science and Engineering Center Users Committee, (McMurdo, Antarctica) 1993-1996.
- US ITASE (International Trans-Antarctic Scientific Expeditions) Steering Committee, 1996-1999.
- WAISCORES (West Antarctic Ice Sheet Ice Cores) Executive Committee, 1997-2001.
- Council of International Glaciological Society, 1995-1998, 2001-2004.
- U.S. Victoria Land Biocomplexity steering committee, 2000-2002.
- Advisory Board for CReSIS (Center for Remote Sensing of Ice Sheets) University of Kansas (an NSF Science and Technology Center); 2005-present.

Editorial Contributions and Recognition:

- Editor, IAHS (International Association of Hydrological Sciences) Publication 170, *The Physical Basis of Ice Sheet Modelling*, 1987, 384 p.
- 1996 Editor's citation for Excellence in Refereeing, *Journal of Geophysical Research*.
- 1998 and 2000 Recognition for exceptional reviewing by Editors, *Journal of Glaciology*.

Students Advised:

James Cunningham,	MS received 1990.	Bob Hawley,	PhD received February 2005.
John Firestone,	PhD received 1992.	Tom Neumann,	PhD received June 2003.
David Morse,	PhD received 1997.	Erin Pettit,	PhD received December 2003.
Paul Jacobson,	PhD received 2001.	Shannon McDaniel,	PhD received October 2005.
Michelle Koutnik,	PhD expected 2009.	Jessica Lundin,	PhD expected 2011
T.J. Fudge,	PhD expected 2012.		

Research Interests:

- Glacier geophysics to complement geochemical analyses of ice cores.
- Applications of Geophysical Inverse theory to glaciological problems.
- Paleo-precipitation from layering in ice sheets.
- Role of snow ventilation in the preservation or disruption of chemical signals in polar firn.
- Paleotemperatures from high-resolution borehole temperature measurements.
- Internal flow instabilities and folding near ice-core sites.
- Effect of divide migration and ice rheological properties on stratigraphic layers.
- Shapes of internal layers and isotherms near ice divides.
- Role of glaciers in landscape evolution.
- Field studies of ice motion and stratigraphy in Greenland and Antarctica.

Field Projects:

- Agassiz Ice Cap, Ellesmere Island, Arctic Canada. 1987-1992.
- Summit, Greenland. 1993-1994.
- Taylor Dome, Antarctica. 1990-1997.
- WAIS Western Divide, Antarctica. 2002-2004.

Ice motion strain networks, radio-echo sounding, automatic weather stations and microclimate physics for ice-core interpretation studies.

Research Grants Summary:

- Principal Investigator for 8 currently funded projects.
- Co-PI on 1 other.

Publications Summary:

- 90 Publications Published or In Press in Refereed Journals and Books.

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