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PROFESSIONAL HISTORY

2006 - present SSHRC Postdoctoral Fellow, School for Resource and Environmental Management, Simon Fraser

University, Burnaby, BC.

Research group of Dr. Wolfgang Haider.

2004 – present Owner and Principal Scientist, Avisualanche Consulting, Vancouver, BC.

2005 Lecturer, Department of Geography, University of British Columbia, Vancouver, BC.

1998 – 2003 Teaching Assistant, Department of Geography, University of British Columbia, Vancouver, BC.

Drs. Hamilton, Oke, Black, McKendry and Moore.

1996 – 1998 Research Assistant, Department of Geography, Swiss Federal Institute of Technology, Zurich, Switzerland.

Drs. Ohmura and Rotach.

1996 Research Assistant, Department of Geography, University of British Columbia, Vancouver, BC.

Drs. Oke, Stevn, McKendry and Roth.

1993 – 1996 Part-time Field Assistant, Geotechnisches Institut AG, Basel, Switzerland. Dr. Vögtli.

ACADEMIC QUALIFICATIONS

Ph.D. in Atmospheric Science, University of British Columbia, Vancouver, BC.

Thesis: Scale analysis of avalanche activity on persistent snowpack weaknesses with respect to large-scale

backcountry avalanche forecasting.

1998 Dipl. Natw. ETHZ (Masters of Science equivalent in Earth Sciences), Swiss Federal Institute of

Technology, Zurich, Switzerland.

Climatology, Atmospheric Chemistry, Glaciology and Snow Science, Hydrology

Thesis: Evaluation of a new technique for extracting mixed layer depth and entrainment zone thickness from

LIDAR backscatter profiles.

PEER-REVIEWED PUBLICATIONS

Haegeli, P., Haider, W., Longland, M., and Breadmore, B. (in review). Decision-making in avalanche terrain – Testing the effect of a decision support tool for trip planning with a stated choice survey. Risk Analysis.

Haegeli, P., and McClung, D.M. (2007). Expanding the snow climate classification with avalanche relevant information – initial description of avalanche winter regimes for south-western Canada. *Journal of Glaciology*, 53, 266-276.

McCammon, I., and Hägeli, P. (2007). Comparing avalanche decision frameworks using accident data from the United States. *Cold Regions Science and Technology*, 47, 193-206.

Hägeli, P., and McClung, D.M. (2004). Hierarchy theory as a conceptual framework for scale issues in avalanche forecast modeling. *Annals of Glaciology*, 38, 209-214.

Gruber, U., Hägeli, P., McClung, D.M., and Manners, E. (2004). Large-scale snow instability patterns in Western Canada: First analysis of the CAA-InfoEx database 1991-2002. *Annals of Glaciology*, 38, 15-20.

- Hägeli, P., and McClung, D.M. (2003). Avalanche characteristics of a transitional snow climate Columbia Mountains, British Columbia, Canada. *Cold Regions Science and Technology*, 37, 255-276.
- Hägeli, P., Steyn, D.G., and Strawbridge, K.B. (2000). Spatial and temporal variability of mixed-layer depth and entrainment zone thickness. *Boundary-Layer Meteorology*. 97: 47-71.

MANUSCRIPTS CURRENTLY IN PREPARATION

- Haegeli, P., and Haider, W. (in preparation). The effect of risk perception and risk propensity on decisions of winter backcountry users. In preparation for *Leisure Sciences*.
- Haegeli, P., and McCammon, I. (**in preparation**). The Avaluator a new support tool for decision-making in avalanche terrain. In preparation for *Risk Analysis*.
- McCammon, I. and Haegeli, P. (in preparation). Can we learn from the past? Derivation of prevention values for Avaluator from historic avalanche accident records. In preparation for *Cold Regions Science and Technology*.
- Haegeli, P. (in preparation). Evaluating students' performance with the Avaluator using a stated preference technique. In preparation for *American Journal of Evaluation*.

BOOKS

- Haegeli, P. (2007). Avalanche! Literacy Place for the Early Years Series. Scholastic Canada Ltd. 20p. ISBN 978-0-7791-6677-0.
- Haegeli, P., and McCammon, I. (2006). Avaluator avalanche accident prevention card. Card and companion booklet. Canadian Avalanche Centre. 30p. ISBN 0-9781741-0-0.

NON-REFEREED CONTRIBUTIONS

- Haegeli, P., McCammon, I., Jamieson, B., Israelson, C., and Statham, G. (in print). Der Avaluator eine kanadische regelbasierte Entscheidungshilfe für Freitzeitsportler in Lawinenegelände (reprint of the ISSW article The Avaluator a Canadian rule-based avalanche decision support tool for amateur recreationists). *Jahrbuch für Alpine Sicherheit*, Jahrbuch 07.
- Haegeli, P. (2007). AST1 Survey 2007 Summary of complete survey sample. Report prepared for ADFAR2 project of the Canadian Avalanche Centre, p. 30.
- Haegeli, P. (2007). CAAML 4.2: Canadian Avalanche Association Markup Language. (published online at http://avalancheinfo.net/caaml/schema/4.2/)
- McCammon, I., and P. Haegeli (2006). Ein Vergleich von Entscheidungsstrategien zur Beurteilung der Lawinengefahr anhand von Unfalldaten aus den USA. Sicherheit im Bergland, Jahrbuch 06: 64-71.
- Haegeli, P., McCammon, I., Jamieson, B., Israelson, C., and Statham, G. (2006). The Avaluator a Canadian rule-based avalanche decision support tool for amateur recreationists (reprint of the ISSW article). *Avalanche News*, 78, 44-52.
- Haegeli, P., and Statham, G., (2006). Decisions, decisions, decisions. Mountain Equipment Co-op Avalanche Awareness Series, Winter 2006. (published online at http://www.mec.ca/).
- Hägeli, P. (2005). CAAML 3.0.3: Canadian Avalanche Association Markup Language. (published online at http://avalancheinfo.net/caaml/schema/3.0.3/)
- Hägeli, P. (2005). Winter backcountry use trend estimates for Western Canada. Report prepared for ADFAR project of the Canadian Avalanche Association, p. 14.
- McCammon, I., and Hägeli, P. (2005). Description and evaluation of existing European decision-making support schemes for recreational backcountry travelers. Report prepared for ADFAR project of the Canadian Avalanche Association, p. 64.
- Hägeli, P., and McClung, D.M. (2005). Avalanche Winter Regimes A system for describing avalanche activity characteristics. *Avalanche News*, 71, 38-44.
- Campbell, C., Jamieson, B., and Hägeli, P. (2005). Small-scale mapping of snow stability: If not, why not? Avalanche News, 71, 45-49.

- Hägeli, P. (2004). CAAML 2.2.6: Canadian Avalanche Association Markup Language. (published online at http://avalancheinfo.net/caaml/schema/2.2.6/)
- Hägeli, P., and Atkins, R. (2003). Storage and visualization of relevant avalanche information at different scales. *Avalanche News*, 64, 38-40.
- Hägeli, P. (2003). CAAML 1.0.3: Canadian Avalanche Association Markup Language. (published online at http://avalancheinfo.net/caaml/schema/1.0.3/)

CONFERENCES AND INVITED LECTURES

- Jamieson, B., Bakerman, L. and Haegeli, P. (2008). Field observations for localizing snow avalanche danger. *GeoHazards Conference*, Quebec City, PQ, May 20-24, 2008. **Abstract Accepted**
- Haegeli, P., and McCammon, I. (2007). The Avaluator a new support tool for decision-making in avalanche terrain. Annual Meeting of Society of Risk Analysis, San Antonio, TX, December 9-12, 2007. Recipient of Poster Award.
- Haegeli, P. (2007). Evaluating the Avaluator the next step after introducing the new avalanche accident prevention program. SARScene 2007 Conference of the National Search and Rescue Secretariat, Victoria, BC, October 17-20, 2007.
- Haegeli, P. (2007). The Avaluator, a new avalanche safety system for backcountry enthusiasts a development at the interface of natural and social sciences. Invited public lecture, Innsbrucker Hofburggespräche, Institut für Naturgefahren und Waldgrenzregionen, University of Innsbruck, Austria, June 21, 2007.
- Haegeli, P. (2007). The Avaluator a new Canadian avalanche decision tool for backcountry enthusiasts. Keynote speaker at gala dinner of Canadian Avalanche Foundation in Whistler, BC, and Calgary, AB, February 23 and 24, 2007.
- Haegeli, P. (2007). Developing avalanche safety systems for backcountry enthusiasts research at the interface of natural and social sciences. Invited presentation for the Yukon Science Institute. Whitehorse and Haines Junction, YK, January 20 and 21, 2007.
- Haegeli, P. (2006). The Avaluator a new Canadian avalanche decision tool for backcountry enthusiasts. Invited public lecture at *International Workshop on Snow Avalanches*, Vancouver, BC, November 1, 2006.
- Haegeli, P., Haider, W., Longland, M., and Beardmore, B. (2006). Decision-Making Preferences of Amateur Recreationists in Avalanche Terrain. *International Workshop on Snow Avalanches*, Vancouver, BC, October 30 November 2, 2006.
- Haegeli, P. (2006). The Avaluator a Canadian rule-based avalanche decision support tool for amateur recreationists. *SARScene* 2006 Conference of the National Search and Rescue Secretariat, Gatineau, PQ, October 4-7, 2006.
- Haegeli, P., McCammon, I., Jamieson, B., Israelson, C., and Statham, G. (2006). The Avaluator a Canadian rule-based avalanche decision support tool for amateur recreationists. Proceedings of *International Snow Science Workshop*, Telluride, CO, October 1-6, 2006, 254-263.
- McCammon, I., and Haegeli, P. (2006). Evaluation of a rule-based decision aid for recreational travelers in avalanche terrain. Proceedings of *International Snow Science Workshop*, Telluride, CO, October 1-6, 2006, 234-243.
- Jamieson, B., Schweizer, J., Haegeli, P., and Campbell, C. (2006). Can stability tests help recreationists assess the local avalanche danger? Proceedings of *International Snow Science Workshop*, Telluride, CO, October 1-6, 2006, 468-477.
- Haegeli, P., Haider, W., Longland, M., and Beardmore, B. (2006). Decision-making preferences of amateur winter recreationists in avalanche terrain. 12th International Symposium on Society & Resource Management. Vancouver, BC, June 3-8, 2006.
- Hägeli, P. (2006). Avalanche Decision Framework for Amateur Recreationists Made in Canada (Entwicklung von Entscheidungshilfen für Skitourengänger in Kanada). Invited colloquium at the Swiss Federal Institute for Snow and Avalanche Research, Davos, Switzerland, January 5, 2006.
- Hägeli, P., and Hairsine, S. (2005). The avalanche decision framework for amateur recreationists (ADFAR) project of the Canadian Avalanche Association. *SARScene 2005 Conference* of the National Search and Rescue Secretariat, Charlottetown, PEI, October 4-9, 2005.
- Hägeli, P., and McClung, D.M. (2004). Initial description of avalanche winter regimes for Western Canada. Proceedings of International Snow Science Workshop, Jackson Hole, WY, September 19-24, 2004, 247-254.
- Atkins, R., and Hägeli, P. (2004). An information system for the Canadian avalanche community. Proceedings of *International Snow Science Workshop*, Jackson Hole, WY, September 19-24, 2004, 469.

- McCammon, I., and Hägeli, P. (2004). Comparing avalanche decision frameworks using accident data from the United States. Proceedings of *International Snow Science Workshop*, Jackson Hole, WY, September 19-24, 2004, 502-512.
- Hägeli, P., and McClung, D.M. (2002). Analysis of Avalanche Activity in the Columbia Mountains, British Columbia, Canada. Proceedings of *International Snow Science Workshop*, Penticton, BC, September 29 October 4, 2002, 1-7.
- Hägeli, P., and Atkins, R. (2002). Storage and visualization of relevant avalanche information at different scales. Proceedings of *International Snow Science Workshop*, Penticton, BC, September 29 October 4, 2002, 32-38.
- Hägeli, P., and McClung, D.M. (2000). A new perspective on computer-aided avalanche forecasting: Scale and scale issues. Proceedings of *International Snow Science Workshop*, Big Sky, MT, October 2-6, 2000, 66-73.
- Hägeli, P., and Steyn, D.G. (2000). Spatial and temporal variability of mixed-layer depth and entrainment zone thickness. 34th Congress of Canadian Meteorological and Oceanographic Society, Victoria, BC, May 29 June 2, 2000.
- Hägeli, P., and McClung, D.M. (1999). Classification of avalanche forecasting models. Invited paper at *International Conference on Avalanches*, Saint Vincent, Valle d'Aosta, Italy, December 13-14, 1999.

TECHNOLOGY TRANSFER AND OUTREACH

Ongoing More than 35 presentations to professional avalanche workers, avalanche course providers and

mountain guides in BC and Alberta (full list available on request).

2007 Innovators in the Schools program of Yukon College: Avalanche safety presentation to elementary school

students in Haines Junction, YK, January 2007.

2000 – 2003 Judge at Vancouver Science Fair.

RESEARCH GRANTS (HAEGELI AS PI OR CO-PI)

2007 Avalanche Decision Framework for Amateur Recreationists 2 (ADFAR2).

A Search and Rescue New Initiative Fund (SAR-NIF) grant from the National Search and Rescue Secretariat

(NSS) through Canadian Avalanche Centre; \$550,393

2006 Comparison of amateur and professional risk perception and decision-making in backcountry skiing.

HeliCat Canada, Canadian Avalanche Association, Backcountry Lodge Operators of BC Association; \$13,000

RECENT RESEARCH PROJECTS

- Examination of decision-making process and risk perception of out-of-bounds skiers (ongoing) for ADFAR2 project of Canadian Avalanche Centre (Simon Fraser University).
 Collaborators: Dr. Ian McCammon, Dr. Wolfgang Haider, Matt Gunn
- Evaluation of Avaluator usage among students of Avalanche Skill Training courses (ongoing) for ADFAR2 project of Canadian Avalanche Centre (Simon Fraser University).
 Collaborators: Dr. Wolfgang Haider, Dr. Ian McCammon
- Revision of Canadian avalanche danger scale (ongoing)
 for ADFAR2 project of Canadian Avalanche Centre (Avisualanche Consulting, Simon Fraser University).
 Collaborator. Grant Statham
- Evaluation of professional decision-making in avalanche terrain using GPS tracking of revealed preferences (ongoing) for HeliCat Canada, Canadian Avalanche Association and Backcountry Lodge Operators of BC Association (Avisualanche Consulting, Simon Fraser University).
- Design of Avaluator, an avalanche decision support tool for amateur recreationists for ADFAR project of Canadian Avalanche Association (Avisualanche Consulting, Simon Fraser University). Collaborators: Dr. Ian McCammon, Dr. Bruce Jamieson, Clair Israelson, Grant Statham
- Examination of Canadian avalanche incident database with respect to non-commercial recreational incidents for ADFAR project of Canadian Avalanche Association (Avisualanche Consulting).
 Collaborator: Dr. Ian McCammon

- Redesign of Canadian avalanche incident database for ADFAR project of Canadian Avalanche Association (Avisualanche Consulting). Collaborator: Dr. Bruce Jamieson
- Assessment of non-commercial winter backcountry use trends in Western Canada for ADFAR project of Canadian Avalanche Association (Avisualanche Consulting).
- Evaluation of existing decision support tools for amateur backcountry users for ADFAR project of Canadian Avalanche Association (Avisualanche Consulting). Collaborator: Dr. Ian McCammon
- Examination of decision-making preferences, risk perception and risk propensity of backcountry skiers, snowmobile riders and out-of-bounds skiers

for ADFAR project of Canadian Avalanche Association (Avisualanche Consulting). *Collaborator*: Dr. Wolfgang Haider

- Design of XML standard for information related to avalanche hazard assessment and forecasting for Canadian Avalanche Association (Avisualanche Consulting).
 Collaborator: Roger Atkins
- Design of architecture for Canadian Avalanche Information System for Canadian Avalanche Association (Avisualanche Consulting). Collaborator. Roger Atkins
- Development of initial avalanche winter regime classification for Western Canada (University of British Columbia).
 Collaborator: Dr. Dave McClung
- Conversion of historic InfoEx reports into electronic database format and subsequent initial analysis
 for Canadian Avalanche Association (University of British Columbia).
 Collaborator: Dr. Urs Gruber

UNIVERSITY TEACHING ASSIGNMENTS

Lecturer ATSC/GEOG 200 (University of British Columbia) – Atmospheric Environment

TA GEOG 100 (University of British Columbia) – Introduction to Physical Geography

ATSC/GEOG 200 (University of British Columbia) - Weather and Climate I

GEOG/SOIL 204 (University of British Columbia) - Forest and Agricultural Climatology

GEOG 374 (University of British Columbia) - Statistics in Geography

SUPERVISION OF STUDENTS

Masters level Matt Gunn, Masters of Resource Management (ongoing)

School for Resource and Environmental Management, Simon Fraser University, Burnaby, BC

Topic: Decision-making process and risk perception of out-of-bounds skiers

Co-supervision with Dr. Wolfgang Haider

AWARDS AND DISTINCTIONS

2006 – present Ambassador for Mountain Equipment Co-op, Vancouver, BC

2007 Annual General Meeting of Society for Risk Analysis, Poster Award

2006 Government of Canada Social Science and Humanities Research Council (SSHRC) Post-Doctoral Fellowship

(\$76,000 over two years)

2003 University Graduate Fellowship, University of British Columbia, Vancouver, BC (\$16,000)

2002 Northern Telecom Graduate Fellowship, Nortel Networks, Brampton, ON (\$16,000)

2000 Partial University Graduate Fellowship, University of British Columbia, Vancouver, BC (\$8,000)

1998 University Graduate Fellowship, University of British Columbia, Vancouver, BC (\$32,000 over two years)
 1998 Dr. Husmann Fellowship, Dr. Husmann Foundation, Zurich, Switzerland (SFr. 20,000 over four years)

ACADEMIC SERVICES

Ongoing Peer-reviews for academic journals

(incl. Annals of Glaciology, Cold Regions Science and Technology, Journal of Applied Meteorology

and Climatology)

2008 Poster chair for International Snow Science Workshop in Whistler, BC, September 21-27, 2008

2008 Convener of session 'Avalanche Science and Forecasting' at 42nd Annual Canadian Meteorological and

Oceanographic Society Congress in Kelowna, BC, May 25-29, 2008

Board of Directors, Canadian Avalanche Association (Director of Active Membership)
 Board of Directors, Canadian Avalanche Association (Director of Affiliate Membership)

1999 Representative of Graduate Students, Atmospheric Science Program, University of British Columbia,

Vancouver, BC

PROFESSIONAL AFFILIATIONS

American Association of Avalanche Professionals (Affiliate Member)

Canadian Avalanche Association (Professional Member)

Canadian Meteorological and Oceanographic Society

Centre for Natural Hazard Research, Simon Fraser University, Burnaby, BC

International Glaciological Society

Society for Risk Analysis

POPULAR MEDIA COVERAGE OF WORK

Television 'The Leading Edge: Innovation in BC' on Knowledge Network (2008)

Short Interviews on CBC and CTV News (2007)

Radio Numerous local radio stations in British Columbia and Alberta

Internet Biglines.com, Backcountrysafety.com, various backcountry forum web sites

Print The Globe and Mail, Calgary Herald, Canadian Geographic, Westworld, Rocky Mountain Outlook,

Fernie Free Press, Mountain Equipment Co-op Snow Sport Catalogue, Metro Vancouver

LANGUAGES

German: fluently written and spoken English: fluently written and spoken

French: basic understanding

Vancouver, December 14, 2007