

FABIANO MONTI

EDUCATION

- NOV 2009
–
JAN 2014
- UNIVERSITÀ DEGLI STUDI DELL'INSUBRIA (COMO) – WSL INSTITUTE FOR SNOW AND AVALANCHE RESEARCH SLF (DAVOS)
- Ph.D. Environmental Science
- *Research topic: Estimating snow stability with the snow cover model SNOWPACK*
 - *Advisors: Dr. Jürg Schweizer, Prof. Carlo Dossi*
- DEC 2008
- UNIVERSITÀ DEGLI STUDI DELL'INSUBRIA (COMO) – ARPA VENETO – DRST CENTRO VALANGHE DI ARABBA
- M.A.Sc, Environmental Science (110/110)
- *Thesis: SNOWPACK MODEL: verification on the Dolomites area and application to the avalanche forecasting system*
 - *Advisors: Professor Carlo Dossi, Dott. Anselmo Cagnati*
- MAR 2006
- UNIVERSITÀ DEGLI STUDI DELL'INSUBRIA (COMO)
- B.S., Environmental Evaluation and Control (104/110)

PROFESSIONAL FORMATION

- SEP 2014
- AINEVA INTER-REGIONAL ASSOCIATION (TRENTO)
- AINEVA Safety Manager
- MAR 2014
- AINEVA INTER-REGIONAL ASSOCIATION (TRENTO)
- AINEVA Professional for Artificial Avalanche Release
- 2013
- REGIONE LOMBARDIA – COLLEGIO REGIONALE LOMBARDO DEI MAESTRI DI SCI
- Freeride specialization course for Ski Instructor
- JUL 2009
- REGIONE LOMBARDIA – COLLEGIO REGIONALE LOMBARDO DEI MAESTRI DI SCI
- Regional Lombardy Ski Instructor course, Snowboard specialization
- *International Snowboard Instructor*

Nov 2008 ARPA VENETO – DRST CENTRO VALANGHE DI ARABBA
–
JUN 2009 Pre-post graduation training
• *Advisor: Dott. Anselmo Cagnati*
JAN 2008 AINEVA INTER-REGIONAL ASSOCIATION (TRENTO)

AINEVA Snow-Weather Observer

RESEARCH EXPERIENCE

DEC 2014 UNIVERSITÀ DEGLI STUDI DELL'INSUBRIA (COMO): MAISARS PROJECT
–
MAY 2016

Researcher

- *Research project supported by PNRA for characterizing the Antarctic snow cover*

Nov 2015 XXXI[^] ANTARCTIC EXPEDITION 2015-2016. MAISARS: IFAC-CNR AND
–
JAN 2016 ESA PROJECT (DOME-C, ANTARCTICA)

Researcher

- *Installed and made maintenance to radiometer and GPS sensors*
- *Performed snow cover measurements in order to characterize the Antarctica snow cover and to interpret the snow microwave data*

DEC 2007 ARPA VENETO – DRST CENTRO VALANGHE DI ARABBA – WSL INSTITUTE FOR
–
JAN 2014 SNOW AND AVALANCHE RESEARCH SLF (DAVOS)

Doctoral and Master Research

- *Conducted winter field work over five seasons in collaboration with avalanche technicians and snow cover scientists*
- *Implemented a new parameterization to simulate snow hardness in the snow cover model SNOWPACK*
- *Developed a new method for visualizing snow stability profiles actually implemented in the snow profile viewer YETI NIK (software used by the Italian avalanche centres)*
- *Verification of the snow cover model SNOWPACK simulations*
- *Snow stratigraphy analysis*

Nov 2012 XXVIII[^] ANTARCTIC EXPEDITION 2011-2012. DOMEX-3: IFAC-CNR AND
–
DEC 2012 ESA PROJECT (DOME-C, ANTARCTICA)

Researcher

- *Assembled and installed a radomex radiometer*
- *Performed snow cover measurements in order to characterize the Antarctica snow cover and to interpret the snow microwave data*

REFERRED PUBLICATIONS

- 2020 FLORIAN HANZER, CARLO MARIA CARMAGNOLA, PIRMIN PHILIPP EBNER, FRANZISKA KOCH, FABIANO MONTI, MATHIAS BAVAY, MATTHIAS BERNHARDT, MATTHIEU LAFAYSSSE, MICHAEL LEHNING, ULRICH STRASSER, HUGUES FRANÇOIS, SAMUEL MORIN: Simulation of snow management in Alpine ski resorts using three different snow models. *Cold Regions Science and Technology*
- 2019 SAMUEL MORIN, SIMON HORTON, FRANK TECHEL, MATHIAS BAVAY, CÉCILE COLÉOU, CHARLES FIERZ, ANDREAS GOBIET, PASCAL HAGENMULLER, MATTHIEU LAFAYSSSE, MATJAŽ LIŽAR, CHRISTOPH MITTERER, FABIANO MONTI, KARSTEN MÜLLER, MARC OLEFS, JOHN S. SNOOK, ALEC VAN HERWIJNEN, VINCENT VIONNET: Application of physical snowpack models in support of operational avalanche hazard forecasting: A status report on current implementations and prospects for the future. *Cold Regions Science and Technology*
- 2016 MONTI, F., GAUME J., VAN HERWIJNEN, A. & SCHWEIZER. Snow instability evaluation: calculating the skier-induced stress in a multi-layered snowpack. *Nat. Hazards Earth Syst. Sci.* 16, 775-788, DOI:10.5194/nhess-16-775-2016, 2016
- 2014 MONTI, F., SCHWEIZER, J., & FIERZ, C.. Hardness estimation and weak layer detection in simulated snow stratigraphy. *Cold Regions Science and Technology*, 103(0), 82-90.
- 2012 MONTI F., CAGNATI A., VALT M. AND SCHWEIZER J.. A new method for visualizing snow stability profiles. *Cold Regions Science Technology* 78: 64-72.

NON-REFERRED PUBLICATIONS

- 2018 VALLATA L., BOVET E, DELLAVEDOVA P, CEAGLIO E, RATTO S. ,MONTI F.: A nearest neighbour method applied in forecasting spontaneous large sized avalanches reaching infrastructures in the Aosta Valley. *Proceedings, International Snow Science Workshop, Innsbruck, Austria, 2018, Innsbruck, Austria; 10/2018*
- 2018 BAVAY, M., FIDDES, J., FIERZ, C., LEHNING, M., MONTI, F., & EGGER, T.: The METEOIO pre-processing library for operational applications. Local avalanche warning in Europe. *Proceedings, International Snow Science Workshop, Innsbruck, Austria, 2018, Innsbruck, Austria; 10/2018*
- 2018 JAEDICKE, C., STUDEREGGER, A., MONTI, F., DELLAVEDOVA, P., STOFFEL, L., AZZARELLO S. & BELLIDO, G. M.: Local avalanche warning in Europe. *Proceedings, International Snow Science Workshop, Innsbruck, Austria, 2018, Innsbruck, Austria; 10/2018*
- 2018 MONTI, F., MITTERER C.: Regional versus local avalanche danger evaluation. *Proceedings, International Snow Science Workshop, Innsbruck, Austria, 2018, Innsbruck, Austria; 10/2018*
- 2018 MONTI, F., MITTERER, C., & STEINKOGLER, W. increasing the operational usability of the snow cover model snowpack. *Proceedings, International Snow Science Workshop, Innsbruck, Austria, 2018, Innsbruck, Austria;*
- 2018 MONTI, F., ALBERTI, R., COMIN, P., WOLYNSKI, A., VALLATA, L., & BUEHLER, Y.: automated identification of forest with protective function against snow avalanches in the Trento province (Italy). *Proceedings, International Snow Science Workshop, Innsbruck, Austria, 2018, Innsbruck, Austria;*

- 2018 MARGHERITA MAGGIONI, GIUSEPPE COLA, RICCARDO SCOTTI, MICHELE FREPPAZ, FABIANO MONTI: Ice/snow avalanches from the hanging snout of the Palòn de la Mare glacier (Central Italian Alps). Proceedings, International Snow Science Workshop, Innsbruck, Austria, 2018, Innsbruck, Austria;
- 2016 Monti, F., Marazzi, A., Spini, D., Mitterer, C., & Steinkogler, W. la skieda telemark festival: managing risk and human factors of 350 skiers and 12 guides. In International snow science workshop proceedings 2016.
- 2016 Monti, F., Mitterer, C., Steinkogler, W., Bavay, M., & Pozzi, A. (2016). Combining snowpack models and observations for better avalanche danger assessments. In International snow science workshop proceedings 2016
- 2016 Gobiet, A., Mitterer, C., Jöbstl, L., Steinkogler, W., Rieder, H., Olefs, M., ... & Bellaire, S. (2016). Operational forecasting of wet snow avalanche activity: a case study for the Eastern European Alps. In Proceedings ISSW (pp. 3-7)
- 2014 MONTI F., SCHWEIZER J., GAUME J., SCHWEIZER J.. Deriving snow stability information from simulated snow cover stratigraphy. *International Snow Science Workshop, Banff, Canada, September 7th - October 3rd 2014.*
- 2014 MONTI F., STEINKOGLER W., MITTERER C.. Livigno (Italy) Freeride Project. *International Snow Science Workshop, Banff, Canada, September 7th - October 3rd 2014.*
- 2013 MONTI F., SCHWEIZER J.. A relative difference approach to detect potential weak layers within a snow profile. *Proceedings of the International Snow Science Workshop, Grenoble, France, 7-11 October 2013.*
- 2013 MONTI F., SCHWEIZER J.. Snow profile visualizations to highlight structural instability conditions. *Proceedings of the International Snow Science Workshop, Grenoble, France, 7-11 October 2013.*
- 2013 CHIAMBRETTI I., MONTI F., VALT M.. Comparison of structural instability indices (Lemons), ECT and RB results. *Proceedings of the International Snow Science Workshop, Grenoble, France, 7-11 October 2013.*
- 2012 MONTI F., CAGNATI A., VALT M. AND SCHWEIZER J.. Nuovo metodo per visualizzare i profili di stabilità del manto nevoso. *Neve e Valanghe* 75: 14-23.
- 2009 MONTI F., CAGNATI A., FIERZ C., LEHNING M., VALT M. AND POZZI A.. Validation of the SNOWPACK model in Dolomites. *Proceedings of the 2009 International Snow Science Workshop, Davos, Switzerland, 27 September – 2 October, 2009: 313-317.*
- 2009 MONTI F., CAGNATI A. AND VALT M.. The 2008-2009 exceptional snowfalls in the Italian Alps: threshold sum approach and analysis of the SNOWPACK model stability indices. *Proceedings of the 2009 International Snow Science Workshop, Davos, Switzerland, 27 September – 2 October, 2009: 318-312.*

SELECTED ABSTRACTS – ORAL PRESENTATIONS

- 2013 CHIAMBRETTI I., MONTI F., VALT M.. Comparison of structural instability indices (Lemons), ECT and RB results. *International Snow Science Workshop, Grenoble, France, 7-11 October 2013*
- 2013 MACELLONI G., BROGIONI M., PETTINATO S., MONTOMOLI F., MONTI F., CASAL T.. L-BAND characterization of DME-C region using ground and satellites data. *IEEE International Geoscience and Remote Sensing Symposium, Melbourne, Australia, Sunday 21 - Friday 26 July 2013*
- 2013 MONTI F., GROOT ZWAAFTINK C. D., SCHNEEBELI M., FIERZ C., MACELLONI G., CAGNATI A.. Exploring the snow lateral variability within a 20m snow trench at Concordia Station, East Antarctica. *Davos Atmosphere and Cryosphere Assembly DACA-13, 8 - 12 July 2013, Davos, Switzerland.*
- 2012 MONTI F., SCHWEIZER J.. Weak layer detection in simulated snow stratigraphy. *International Snow Science Workshop, Anchorage, Alaska, 17-21 September 2012*
- 2012 MICHAEL LEHNING; SASCHA BELLAIRE; CHARLES G. FIERZ; FABIANO MONTI; MICHAEL SCHIRMER; JUERG SCHWEIZER. Assessing snow cover stability with simulated snow profiles, *Abstract C13G-02 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.*
- 2009 MONTI F., CAGNATI A. AND VALT M.. The 2008-2009 exceptional snowfalls in the Italian Alps: threshold sum approach and analysis of the SNOWPACK model stability indices. *International Snow Science Workshop, Davos, Switzerland, 27 September – 2 October, 2009.*

SELECTED ABSTRACTS – POSTERS

- 2014 MONTI F., STEINKOGLER W., MITTERER C., POZZI A.. An integrated approach for backcountry snow sports safety and avalanche risk management. *Forum '14 Alpinum, Darfo Boario Terme, Italy, September 17th - 20th 2014.*
- 2014 MONTI F., BELLAIRE S., MITTERER C., STEINKOGLER W., POZZI A.. Bringing avalanche forecasting into the 21st century: a combination of models and weather stations. *Forum '14 Alpinum, Darfo Boario Terme, Italy, September 17th - 20th 2014.*
- 2014 MONTI F., SCHWEIZER J., GAUME J., SCHWEIZER J.. Deriving snow stability information from simulated snow cover stratigraphy. *International Snow Science Workshop, Banff, Canada, September 7th - October 3rd 2014.*
- 2014 MONTI F., STEINKOGLER W., MITTERER C.. Livigno (Italy) Freeride Project. *International Snow Science Workshop, Banff, Canada, September 7th - October 3rd 2014.*
- 2014 MONTI F., GAUME J., VA HERWIJNEN A., SCHWEIZER J.. A new approach to assess the skier additional stress within a multi-layered snowpack. *EGU2014, European Geosciences Union, Vienna, Austria, 27 April – 2 May 2014.*
- 2013 MONTI F., SCHWEIZER J.. A relative difference approach to detect potential weak layers within a snow profile. *Proceedings of the International Snow Science Workshop, Grenoble, France, 7-11 October 2013.*

- 2013 MONTI F., SCHWEIZER J.. Snow profile visualizations to highlight structural instability conditions. *Proceedings of the International Snow Science Workshop, Grenoble, France, 7-11 October 2013.*
- 2013 MONTI F., SCHWEIZER J.. Weak snow layer detection based on relative differences in snow properties between layers. *EGU2013. European Geosciences Union, Vienna, Austria, 7-12 April 2013.*
- 2013 MONTI F., SCHWEIZER J.. A relative differences approach to detect weak layers in simulated snow profiles. *Davos Atmosphere and Cryosphere Assembly DACA-13, 8 - 12 July 2013, Davos, Switzerland*
- 2012 MONTI F., SCHWEIZER J.. Deriving snow hardness from density and its application to the 1-D snow cover model SNOWPACK. *EGU2012. European Geosciences Union, Vienna, Austria, 22-27 April 2012.*
- 2012 VALT M., MONTI F., CIANFARRA P. AND MORO D.. Physical properties of snow cover in Alps: insight from the Davos area (Switzerland) and Veneto-Friuli Venezia Giulia regions (Italy). *EGU2012. European Geosciences Union, Vienna, Austria, 22-27 April 2012.*
- 2011 MONTI F., SCHWEIZER J.. Stability information supplied by the snow cover model SNOWPACK. *9th Swiss Geoscience Meeting, Zurich 2011.*
- 2009 MONTI F., CAGNATI A., FIERZ C., LEHNING M., VALT M. AND POZZI A.. Validation of the SNOWPACK model in Dolomites. *International Snow Science Workshop, Davos, Switzerland, 27 September – 2 October, 2009.*

TEACHING EXPERIENCES

- 2013 – 2016 REGIONE LOMBARDIA – COLLEGIO REGIONALE LOMBARDO DEI MAESTRI DI SCI
- Lecturer
- *Freeride course: nivology, snow stability, risk mitigation, avalanche bulletin*
 - *Ski Instructor courses: nivology, snow stability, risk mitigation, avalanche bulletin, alpine meteorology*
- 2009 – 2016 UNIVERSITÀ DEGLI STUDI DELL'INSUBRIA (COMO)
- Organizer and lecturer
- *Course on security in the winter mountain environment: basic snow science and security issues*
- 2013 – 2015 SNOWSPORTS ACADEMY SAN MARINO S.r.l.
- Lecturer and ski instructor
- *Ski Instructor course: nivology, snow stability, risk mitigation, avalanche bulletin*
- 2009 – 2016 AINEVA INTER-REGIONAL ASSOCIATION (TRENTO)
- Lecturer at courses
- *Training for weather / snow observers (2A course)*
 - *Training for director of operations / safety officers (2C-D course)*
 - *Refresher course for avalanche forecasters*

- 2013 CNR- IFAC (FIRENZE)
- Lecturer
- *Nivology course: the snow cover model SNOWPACK*
 - *Nivology course: the snow cover thermal exchanges*
- 2010 – 2013 ARPA VENETO – DRST CENTRO VALANGHE DI ARABBA
- Lecturer at courses
- *San Marino Republic Ski Instructor courses*
 - *Regione Veneto Ski Instructor courses*
- 2010 – 2013 WSL INSTITUTE FOR SNOW AND AVALANCHE RESEARCH SLF (DAVOS)
- Lecturer at courses
- *IFKIS course: training for snow observers of the Swiss national avalanche service*

PROFESSIONAL EXPERIENCES

- DEC 2013 ALPSOLUT S.R.L. (SONDRIO); SPIN-OFF INSUBRIA
–
- PRESENT Charter member and president
- DEC 2009 SNOW&CO SNOWBOARD SCHOOL (LECCO)
–
- PRESENT Charter member and snowboard instructor
- MAR 2010 UNIVERSITÀ DEGLI STUDI DELL'INSUBRIA (COMO)
–
- JUL 2010 Sampling campaign in mountain terrain
- OCT 2004 SAFARI SERVICE S.R.L (LECCO)
–
- APR 2007 Partner in managing three mountain huts, among which a hotel, in the ski resort Piani di Bobbio-Valtorta (Lecco)

COMPUTING SKILLS

OPERATIVE SYSTEMS
Windows, Linux, Mac OS

GIS
ArcGis 10

NUMERICAL
Matlab, R-project

OFFICE APPLICATIONS
MS Office package, OpenOffice, Adobe
Illustrator, Adobe PhotoShop, Adobe
InDesign

LANGUAGES

Italian: *native speaker*
English: *business fluent*

INTERESTS

Snowboarding, skiing, mountain biking, hiking and mountaineering are my great passions. I love travelling and cooking.

“Il sottoscritto, ai sensi e per gli effetti delle disposizioni contenute negli articoli 46 e 47 del decreto del Presidente della Repubblica 28 dicembre 2000, n. 445 e consapevole delle conseguenze derivanti da dichiarazioni mendaci ai sensi dell’articolo 76 del predetto D.P.R. n. 445/2000, sotto la propria responsabilità dichiara che le informazioni contenute nel presente curriculum corrispondono a verità”.

Firma _____

“Autorizzo il trattamento dei miei dati personali presenti nel cv ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 “Codice in materia di protezione dei dati personali” e del GDPR (Regolamento UE 2016/679)”.

Firma _____

Luogo, data LIVIGNO, 12-02-2020