

Gabriela Schaepman-Strub

Research Group on Spatial Ecology and Remote Sensing
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<http://www.ieu.uzh.ch/research/ecology/spatial.html>

Education

2004 PhD, Natural Sciences, Dept. Geography, Remote Sensing, Univ. Zurich.
1999 MSc, Geography (major), Biology (minor), European Ethnology (minor), Univ. Zurich.

Academic Positions 60% part time research positions since 2002, due to family duties (2 children *2002, 2005)

Since 2009 Research scientist at Univ. Zurich, Inst. of Evolutionary Biology and Environmental Studies.
Head of research group on Spatial Ecology and Remote Sensing.
2007 - 2009 Research scientist at Wageningen Univ. (Prof. F. Berendse).
2005 – 2007 External postdoctoral fellow of the European Space Agency at Wageningen Univ.
2005 – 2005 Postdoctoral fellow of the SNF (fellowship for prospective researcher) at Wageningen Univ.
2003 – 2004 Visiting scientist at Wageningen Univ. (Prof. F. Berendse)
2001 Research scholar at Boston Univ. (Profs. R. Myneni, J. Knyazikhin).
1999 – 2004 Research assistant and PhD student in imaging spectroscopy, responsible for scientific
instruments, (Prof. K. Itten), Univ. Zurich.
1997 – 1999 Teaching assistant in Remote Sensing, Univ. Zurich.

Peer Reviewed Publications (based on 60% employment since 2002)

As of 22/10/2011 G. Schaepman-Strub has published 18 (15 ISI-listed) peer-reviewed articles since 2001, with 236 (ISI) and 271 (SCOPUS) citations, and 15.73 (ISI) average citations per item, with an h-index of 7 (ISI and SCOPUS). Researcher-ID <http://www.researcherid.com/rid/D-8785-2011>

Submitted

Myers-Smith, I., B. C. Forbes, M. Wilmking, M. Hallinger, T. Lantz, D. Blok, K. D. Tape, M. M. Fauria, U. Sass-Klaassen, E. Lévesque, S. Boudreau, P. Ropars, L. Hermanutz, A. Trant, L. Siegwart Collier, S. Weijers, J. Rozema, S. A. Rayback, N. M. Schmidt, **G. Schaepman-Strub**, S. Wipf, C. Rixen, C. Ménard, S. Venn, S. Goetz, L. Andreu-Hayles, S. Elmendorf, H. E. Epstein, J. Welker, J. Grogan, and D. Hik. (in revision), Shrub expansion in tundra ecosystems: Dynamics, impacts and research priorities.

Published

Blok, D., **G. Schaepman-Strub**, H. Bartholomeus, M. M. P. D. Heijmans, T. C. Maximov, and F. Berendse (2011), The response of Arctic vegetation to the summer climate: relation between shrub cover, NDVI, surface albedo and temperature, *Environmental Research Letters*, 6(3), 035502.
Blok, D., U. Sass-Klaassen, **G. Schaepman-Strub**, M. Heijmans, P. Sauren, F. Berendse (2011), What are the main climate drivers for shrub growth in Northeastern Siberian tundra?, *Biogeosciences*, 8(5), 1169-1179.
Blok, D., M. Heijmans, **G. Schaepman-Strub**, J. van Ruijven, F. Parmentier, T. Maximov, and F. Berendse (2011), The Cooling Capacity of Mosses: Controls on Water and Energy Fluxes in a Siberian Tundra Site, *Ecosystems*, 1-11.
Parmentier, F. J. W., J. van Huissteden, M. K. van der Molen, **G. Schaepman-Strub**, S. A. Karsanaev, T. C. Maximov, A. J. Dolman (2011), Spatial and temporal dynamics in eddy covariance observations of methane fluxes at a tundra site in northeastern Siberia, *JGR-Biogeosciences*, 116.

- Liang, S., Kustas, W., **Schaepman-Strub, G.**, Li, X., "Impacts of Climate Change and Land Use Changes on Land Surface Radiation and Energy Budgets", *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 3, 219-224, 2010.
- Blok, D., Heijmans, M., **Schaepman-Strub, G.**, Kononov, A.V., Maximov, T.C., Berendse, F. (2010), Shrub expansion may reduce summer permafrost thaw in Siberian tundra. *Global Change Biology* (16), 1296-1305, 2010.
- Schaepman-Strub, G.**, J. Limpens, et al., "Towards spatial assessment of carbon sequestration in peatlands: spectroscopy based estimation of fractional cover of three plant functional types," *Biogeosciences* 6(2): 275-284, 2009.
- Limpens, J., F. Berendse, C. Blodau, J.G. Canadell, C. Freeman, J. Holden, N. Roulet, H. Rydin, **G. Schaepman-Strub**, "Peatlands and the carbon cycle: From local processes to global implications - a synthesis," *Biogeosciences*, 5, 1475-1491, 2008.
- Kooistra, L., W. Wamelink, **G. Schaepman-Strub**, M. Schaepman, H. van Dobben, U. Aduaka, O. Batelaan, "Assessing and predicting biodiversity in a floodplain ecosystem: Assimilation of net primary production derived from imaging spectrometer data into a dynamic vegetation model", *Remote Sensing of Environment*, 112, 2118-2130, 2008.
- Schaepman, M.E., G.W.W. Wamelink, H.F. van Dobben, M. Gloor, **G. Schaepman-Strub**, L. Kooistra, J.G.P.W. Clevers, A. Schmidt, F. Berendse, "River Floodplain Vegetation Scenario Development Using Imaging Spectroscopy Derived Products as Input Variables in a Dynamic Vegetation Model", *Photogrammetric Engineering & Remote Sensing*, 73, 1179-1188, 2007.
- E. Leyequien, M. Slot, J. Verrelst, **G. Schaepman-Strub**, I. Heitkönig, A. Skidmore, "Capturing the fugitive: applying remote sensing to animal distribution and diversity - a review," *International Journal of Applied Earth Observation and Geoinformation*, 9, 1-20, 2007.
- Schaepman-Strub, G.**, M. E. Schaepman, T. H. Painter, S. Dangel, J. V. Martonchik, "Reflectance Quantities in Optical Remote Sensing - Definitions and Case Studies," *Remote Sensing of Environment*, 103 (1), 27-42, 2006.
- Schaepman-Strub, G.**, M. E. Schaepman, S. Dangel, T. Painter, and J. Martonchik, "About the Use of Reflectance Terminology in Imaging Spectroscopy," *EARSeL eProceedings*, 4, 191-202, 2005.
- M. E. Schaepman, B. Koetz, **G. Schaepman-Strub**, and K. I. Itten, "Spectrodirectional remote sensing for the improved estimation of biophysical and -chemical variables: Two case studies," *International Journal of Applied Earth Observation and Geoinformation*, 6, 271-282, 2005.
- M. Schaepman, B. Koetz, **G. Schaepman-Strub**, N. E. Zimmermann, and K. I. Itten, "Quantitative retrieval of biogeophysical characteristics using imaging spectroscopy - a mountain forest case study," *Community Ecology*, 5, 93-104, 2004.
- G. Strub**, M. E. Schaepman, Y. Knyazikhin, and K. I. Itten, "Evaluation of spectrodirectional Alfalfa canopy data acquired during DAISEX '99," *IEEE Transactions on Geoscience and Remote Sensing*, 41, 1034-1042, 2003.
- G. Strub**, U. Beisl, M. Schaepman, D. Schlaepfer, C. Dickerhof, and K. Itten, "Evaluation of diurnal hyperspectral HDRF data acquired with the RSL field goniometer during the DAISEX'99 campaign," *Isprs Journal of Photogrammetry and Remote Sensing*, 57, 184-193, 2002.
- M. Berger, M. Rast, P. Wursteisen, E. Attema, J. Moreno, A. Muller, U. Beisl, R. Richter, M. Schaepman, **G. Strub**, M.P. Stoll, F. Nerry and M. Leroy, M., "The DAISEX campaigns in support of a future land-surface-processes mission," *ESA Bulletin-European Space Agency*, 101-111, 2001.

Book Contributions

- Schaepman-Strub, G.**, M.E. Schaepman, J. Martonchik, T. Painter, S. Dangel, Radiometry and Reflectance: from Terminology Concepts to Measured Quantities. In T. Warner, M.D. Nellis & G. Foody, Eds., *The SAGE Handbook of Remote Sensing*: SAGE, UK, 2009.
- Bruegge, C.J., M. Schaepman, **G. Strub**, U. Beisl, A. Demircan, B. Geiger, T. Painter, B. Paden, and J. Dozier, Field measurements of bi-directional reflectance, in *Reflection Properties of Vegetation and Soil - with a BRDF Data Base*, M. Von Schönemark, B. Geiger, H.P. Röser, Eds., Wissenschaft und Technik Verlag, Berlin, 2004, pp. 352.
- M. E. Schaepman, B. Koetz, **G. Schaepman-Strub**, N. E. Zimmermann, and K. I. Itten, "Quantitative retrieval of biogeophysical characteristics using imaging spectroscopy - a mountain forest case study," in *Modern Approaches in Vegetation Monitoring*, E. Feldmeyer-Christe, S. Ghosh, O. Wildi, N. E. Zimmermann, and J. Podani, Eds. Budapest (HU): Akadémiai Kiadó, 2004, pp. 143.

Newspaper/ Bulletin articles

- Wieder, K., Canadell, J., Limpens, J., Moore, T., Roulet, N., **G. Schaepman-Strub**, "Peatlands and the Carbon Cycle - From Local Processes to Global Implications. First International Symposium on Carbon in

- Peatlands, Wageningen, the Netherlands, 15-18 April, 2007". EOS, Transactions American Geophysical Union. The Newspaper of the Earth and Space Sciences, 88, 295, 2007.
- Wieder, R.K., Canadell, J., Limpens, J., Moore, T., Roulet, N., **G. Schaepman-Strub**, "Peatlands and the Carbon Cycle. Bulletin of the Ecological Society of America, 89, 79-80, 2008.

Conference proceedings

- Robroek, B., **Schaepman-Strub, G.**, Limpens, J., Berendse, F., & Breeuwer, A. (Eds.) (2007). Proceedings of the First International Symposium on Carbon in Peatlands, 15-18 April, 2007, Wageningen University, The Netherlands, 141p.

Conference proceeding contributions and oral presentations (>30)

- Bartholomeus, H.M.; **Schaepman-Strub, G.**; Blok, D.; Udalsov, S.; Sofronov, R. (2010:) Spectral estimation of soil properties in the organic layer of tundra soils. 10th Nederlands Aardwetenschappelijk Congres, 22-23 April 2010.
- Bartholomeus, H., **Schaepman-Strub, G.**, Blok, D., Udaltsov, S., & Sofronov, R. (2010). Estimation and Extrapolation of Soil Properties in the Siberian Tundra, using Field Spectroscopy. In A.F.H. Goetz (Ed.), Art. Science and Applications of Reflectance Spectroscopy (p. 19). Boulder, CO, USA: ASD Inc. and IEEE GRSS.
- Beisl, U., **Strub, G.**, & Dickerhof, C. (2000). Validation of Hyperspectral Imaging Data from the Barrax Test Site with BRDF Ground Measurements in the Reflective Wavelength Range. In, 2nd EARSEL Workshop on Imaging Spectroscopy. Enschede, The Netherlands
- Berger, M., Rast, M., Wursteisen, P., Attema, E., Moreno, J., Müller, A., Beisl, U., Richter, R., Schaepman, M., **Strub, G.**, Stoll, M.P., Nerry, F., & Leroy, M. (2001). The ESA DAISEX Imaging Spectroscopy campaigns in support of SPECTRA - first results. In R.A. Harris (Ed.), SPECTRA Workshop - The concept of a space-borne Earth Observation Mission addressing the terrestrial component of the Carbon Cycle (pp. p.14.11, published on CDROM). 12-13 June 2001, ESA, Estec, Noordwijk, The Netherlands: ESA, Estec
- Blok, D., **Schaepman-Strub, G.**, Heijmans, M.M.P.D., Sass-Klaassen, U., Bartholomeus, H., Knyazikhin, Y., & Berendse, F. (2010). Climate change effects on vegetation in Northeastern Siberian tundra - How does shrub growth relate to local climate and what are potential effects of shrub expansion on permafrost thawing? In, EGU. Vienna
- Blok, D., **Schaepman-Strub, G.**, Sass-Klaassen, U., Heijmans, M.M.P.D., Bartholomeus, H., & Berendse, F. (2010). Shrub growth response to climate change: Feedbacks of vegetation change to permafrost thaw in the Siberian Arctic tundra. Oral presentation COS 93-4, 95th ESA Annual Meeting, 1-6 August, 2010. Pittsburgh, Pennsylvania, USA.
- Blok, D.; **Schaepman-Strub, G.**; Sass-Klaassen, U.; Heijmans, M.M.P.D.; Bartholomeus, H.M.; Berendse, F. (2010). Shrub growth response to climate change and feedbacks of vegetation change to permafrost thaw in the Siberian arctic tundra. AGU Fall Meeting, San Francisco, California, USA, 13-17 December 2010.
- Blok, D.; Heijmans, M.M.P.D.; **Schaepman-Strub, G.**; Berendse, F. (2011) Vegetation feedbacks to permafrost thaw. In: Proceedings of the Darwin Center for Biogeosciences yearly meeting, April 2009, Veldhoven, The Netherlands. – Veldhoven, Darwin Center for Biogeosciences yearly meeting.
- Dangel, S., Kneubühler, M., Kohler, R., Schaepman, M., Schopfer, J., **Schaepman-Strub, G.**, & Itten, K. (2003). Combined Field and Laboratory Goniometer System – FIGOS and LAGOS. In, IGARSS. Toulouse, France
- Dangel, S., Kneubühler, M., Schaepman, M., **Schaepman-Strub, G.**, Schopfer, J., & Itten, K.I. (2004). Combined Field and Laboratory Goniometer System - FIGOS and LAGOS. In M. Rast (Ed.), 2nd SPECTRA Workshop. Noordwijk, The Netherlands: ESA
- Gonsamo Gosa, A., **Schaepman-Strub, G.**, Kooistra, L., Schaepman, M., & Pellikka, P. (2007). Estimation of leaf area index using optical field instruments and imaging spectroscopy. In, 5th EARSEL SIG IS Workshop, 23-25 April 2007 (p. 13). Bruges, Belgium
- Kooistra, L., Clevers, J., Schaepman, M., van Dobben, H., Sykora, K., Holtland, J., Batelaan, O., Debruyn, W., Bogaert, J., Schmidt, A., Clement, J., Bloemmen, M., Mucher, C.A., van den Hoof, C., de Bruin, S., Stuiver, J., Zurita, R., Malenovsky, Z., Wenting, P., Mengesha, T., van Oort, P.A.J., Liras Laita, E., Wamelink, W., **Schaepman-Strub, G.**, Hung, L.Q., Verbeiren, B., Bertels, L., & Sterckx, S. (2005). Linking Biochemical and Biophysical Variables Derived from Imaging Spectrometers to Ecological Models - The HyEco'04 Group Shoot. In B. Zagajewski, M. Sobczak & W. Prochnicki (Eds.), EARSEL 4th Workshop on Imaging Spectroscopy (p. 61). Warsaw, Poland

- Miller, J., Zarco-Tejada, P., Haboudane, D., Verhoef, W., Jacquemoud, S., Gitelson, A., Moorthy, I., Bach, H., Riano, D., **Schaepman-Strub, G.**, & Chuvieco, E. (2006). Retrieval of Biophysical/Structural Canopy Properties: An evolving synthesis of imaging spectrometry data and models. IGARSS. Denver
- Nightingale, J., **Schaepman-Strub, G.**; Nickeson, J.; Baret, F.; Herold, M. (2010) Assessing satellite-derived land product quality for earth system science applications: results from the CEOS LPV sub-group. In: Proceedings of the ESA ILEAPS conference on: Earth Observation for Land-Atmosphere Interaction Science European Space Agency (ESA-ESRIN), Rome, Italy, 3 - 5 November, 2010. - Frascati, Italy : ESA-ESRIN, ESA ILEAPS conference on: Earth Observation for Land-Atmosphere Interaction Science, Rome, Italy, 2010-11-03/2010-11-05.
- Schaepman, M., Dangel, S., Kneubühler, M., Schlaepfer, D., Bojinski, B., Brazile, J., Koetz, B., **Strub, G.**, Kohler, R., Popp, C., Schopfer, J., & Itten, K. (2002). Quantitative Field Spectroscopic Measurement Instrumentation and Techniques. In 1st EPFS Workshop on Field Spectrometry (p. 13). Southampton, UK: NERC
- Schaepman, M.E., Wamelink, G.W.W., van Dobben, H., Gloor, M., **Schaepman-Strub, G.**, Kooistra, L., Schmidt, A., & Berendse, F. (2005). Regional Scale Ecosystem Modelling for Vegetation Scenario Development - Demonstrated in a River Floodplain in the Netherlands using Imaging Spectroscopy. In S. Liang, J. Liu, X. Li, R. Liu & M.E. Schaepman (Eds.), 9th International Symposium on Physical Measurements and Signatures in Remote Sensing (ISPMSRS) (pp. 667-670). Beijing, China.
- Schaepman, M.E., Kneubühler, M., Bartholomeus, H., Malenovsky, Z., Damm, A., **Schaepman-Strub, G.**, & Hueni, A. (2010). Scaling Spectroscopic Approaches – from Leaf Albedo to Ecosystems Mapping. In A.F.H. Goetz (Ed.), *Art, Science and Applications of Reflectance Spectroscopy* (p. 19). Boulder, CO, USA: ASD Inc. and IEEE GRSS
- Schaepman-Strub, G.** (2011): Vegetation Communities in the Siberian Arctic Tundra – Interactions with the Carbon and Energy Cycle. Swissplant'11, 9-11 February 2011, Meiringen, Switzerland.
- Schaepman-Strub, G.** et al. (2010): Upscaling methane emissions to regional scale using remotely sensed proxies. 5th International Workshop on C/H₂O/Energy balance and climate over boreal and arctic regions, 11-12 November 2010, Wageningen, the Netherlands.
- Schaepman-Strub, G.**, Claverie, M., & Schaepman, M. (2008). Land surface albedo in Northern high latitudes - MODIS satellite-inferred albedo trends for a NE Siberian tundra area. In 5th EGU General Assembly (pp. EGU2008-A-00473). Vienna: Copernicus Publications.
- Schaepman-Strub, G.**, Claverie, M., Painter, T., & Schaepman, M.E. (2007). Albedo Assessment and Evaluation over Arctic Siberian Tundra. In M.E. Schaepman, S. Liang, N.E. Groot & M. Kneubühler (Eds.), 10th Intl. Symposium on Physical Measurements and Spectral Signatures in Remote Sensing (ISPMSRS) (pp. 310-311). Davos, CH.
- Schaepman-Strub, G.**, Martonchik, J., Schaaf, C., & Schaepman, M. (2006). Standardizing the description of satellite albedo products (solicited). In EGU. Vienna, Austria.
- Schaepman-Strub, G.**, Martonchik, J., Schaaf, C., & Schaepman, M. (2006). What's in a satellite albedo product? In IGARSS (pp. 2848-2851). Denver, USA.
- Schaepman-Strub, G.**, Martonchik, J., Schaaf, C., & Schaepman, M. (2006). What's in a satellite albedo product? In Global Vegetation Workshop. Missoula, USA.
- Schaepman-Strub, G.**, Painter, T., Huber, S., Dangel, S., Schaepman, M.E., Martonchik, J., & Berendse, F. (2004). About The Importance of The Definition of Reflectance Quantities - Results of Case Studies. In M.O. Altan (Ed.), XXth ISPRS Congress (pp. 361-366). Istanbul, Turkey
- Schaepman-Strub, G.**, Schaepman, M., Dangel, S., Painter, T., & Martonchik, J. (2005). The Importance of Reflectance Terminology in Imaging Spectroscopy. In B. Zagajewski, M. Sobczak & W. Prochnicki (Eds.), EARSeL 4th Workshop on Imaging Spectroscopy (p. 107)
- Schaepman-Strub, G.**, Schaepman, M., Knyazikhin, Y., & Itten, K.I. (2004). Towards spectro-directional prior information - case study on alfalfa canopy observed during DAISEX'99. In M. Rast (Ed.), Second SPECTRA Workshop. ESA/ESTEC, Noordwijk, The Netherlands: ESA
- Schaepman-Strub, G.**, Schaepman, M., Moreno, J., Knyazikhin, Y., & Itten, K. (2003). Diurnal Spectro-Directional Characterization of Alfalfa with FIGOS. In Geophys. Res. Abstracts, EGU (p. 12311). Nice, France
- Schaepman-Strub, G.**, Schaepman, M.E., Dangel, S., Painter, T., & Martonchik, J. (2005). The Importance of Reflectance Terminology in Imaging Spectroscopy. In B. Zagajewski & M. Sobczak (Eds.), EARSeL (pp. 39-52). Warsaw (PI)
- Schopfer, J.T., Dangel, S., Kaiser, J.W., Kneubühler, M., Nieke, J., **Schaepman-Strub, G.**, Schaepman, M.E., & Itten, K. (2004). Comparison of field and laboratory spectro-directional measurements using an artificial target. In International Radiation Symposium. Busan, Korea
- Schopfer, J.T., Dangel, S., Kaiser, J.W., Kneubühler, M., Nieke, J., **Schaepman-Strub, G.**, Schaepman, M.E., & Itten, K. (2004). Comparison of field and laboratory spectro-directional measurements using an artificial target. In SPIE International Symposium of Remote Sensing. Maspalomas, Spain

- Strub, G.**, Beisl, U., Schaepman, M., Schlapfer, D., Dickerhof, C., & Itten, K. (2000). Evaluation of Diurnal Hyperspectral BRDF Data Acquired with the RSL Field Goniometer during the DAISEX'99 Campaign. In, 2nd EARSEL Workshop on Imaging Spectroscopy. Enschede, The Netherlands
- Strub, G.**, Keller, P., Kneubuhler, M., Schlapfer, D., Schaepman, M., Itten, K.I., Joshi, J., Diemer, M., Schmid, B., & Spehn, E. (1998). Extraction and validation of biophysical variables of grassland communities using field spectroradiometric measurements. In M. Schaepman, D. Schlapfer & K. Itten (Eds.), 1st Earssel Workshop on Imaging Spectroscopy (pp. 299-306). Zurich: European Assoc Remote Sensing Laboratories
- Strub, G.**, Koetz, B., Schaepman, M., & Itten, K. (2002). Evaluation of Spectro-Directional Alfalfa Field Measurements Acquired During DAISEX'99. In, IWMMM-3. Steamboat Springs, USA

Invited and Solicited Presentations

September 24, 2008, Frascati (Italy), ESA/ESRIN meeting on global albedo products.

May 28-31, 2007, Toulouse (France), Landflux workshop.

April 2006, Vienna, EGU, Standardizing the description of satellite albedo products

October 13, 2006, Wageningen (Netherlands), Workshop on physical based approaches in remote sensing.

Awards and Fellowships

European Space Agency external research fellowship

Swiss National Science Foundation fellowship for prospective researchers

Contributions to Projects

2011-2014 Swiss National Science Foundation, Towards an improved understanding of the Global Energy Balance: absorption of solar radiation at the Earth surface - Col.

2011-2012 Univ. Zurich, Faculty of Sciences, Giants of Aldabra - Col.

2009-2011 Univ. Zurich, Faculty of Sciences, Peer mentoring program, Young Academics in Spatial Ecology - PI

2007 – 2010 Dutch Science Foundation, Dutch-Russian Cooperation, Long-term observation of soil carbon and methane fluxes in Siberian Tundra – Col, responsibility for remote sensing part and training of Russian PhD student.

2007-2008 Wageningen University, Laboratory Facility for Assessing the Plant (Non-) Pigment System – coordination of system setup.

2006-2007 European Space Agency, External research fellowship, 24 months - PI

2005 Swiss National Science Foundation, Fellowship for perspective researchers, PBZH2—108485, 12 months - PI

2000 – 2003 Swiss National Science Foundation Project 2000–061431.00, Investigation of the Potential of Imaging Spectrometry as an Earth Observation Method for Environmental Analysis – PhD funding, responsibility for reporting subproject.

2000 ESA Project AO/1-3805/00/NL/MM: Scientific Analysis of the ESA Airborne Multi-Annual Imaging Spectrometer Campaign DAISEX – responsibility for analysis and reporting.

1999-2003 Astrium GmbH, VEGIS, Retrieval of Vegetation Parameters from Hyperspectral Imaging Sensor Data – responsibility for analysis and reporting.

1999 ESA/ESTEC, DAISEX'99, DLR DAIS 7915 and IntSpec HyMap in Barrax (Spain) – responsibility for spectro-directional ground measurements.

PhD Co-Supervision

Hakuba, M., Towards an improved understanding of the Global Energy Balance: absorption of solar radiation at the Earth surface, ETHZ, 2011-2014.

Godong, E., Tropical Forest Types in Northern Borneo – Diversity and Climate Functions. UZH, 2011-2014.

Block, D., Feedbacks of vegetation change to surface energy balance and seasonal thawing of permafrost, Wageningen Univ., 2007-2011.

Popova, M., Estimation of methane emissions in the Northeastern Siberian Arctic using remote sensing based landscape indicators. Russian Academy of Science, Yaktutsk, 2008-2011.

MSc Thesis Supervision

Brügger, N., Spectral indices to predict Sphagnum water content and growth, UZH, 2011.
Pellkofer, S., Wild bee and wasp diversity in family gardens of the city of Zurich, UZH, 2011.
Vd Bergh, T., Fire occurrence and its relation to vegetation structure in Sub-Saharan Africa, WUR, 2008.
Claverie, M., Albedo determination over Northeastern Siberian Tundra, WUR, 2007.
Gonsamo, A., Estimation of leaf area index using optical field instruments and imaging spectroscopy, WUR, 2006.
Menken, M., Sphagnum dominated peatlands and field spectroscopy, WUR, 2006.
Kohler, R., Direktionale Messungen eines Pflanzenbestandes mit LAGOS über einen Phänologiezyklus, UZH, 2003.
Schopfer, J., Direktionale und spektrale Labor- und Feldmessungen mit dem Goniometer, UZH, 2003.
Huber, S., Interannual Vegetation Analysis of an Agricultural Area in Spain Using Imaging Spectroscopy, UZH, 2002.

Teaching

2011 "Spatial Ecology and Remote Sensing", MSc course, Univ. Zurich
2009 - 2011 "Remote Sensing in Tropical Forests", lecture in Tropical Forest Ecology (BSc, UWW 112), Univ. Zurich.
2007 - 2008 "Arctic Vegetation in a Changing Climate", lecture in Trends in Ecology (MSc, REG 31306), Wageningen Univ.
2006 - 2008 "Reflectance Anisotropy in Remote Sensing", lecture in Remote Sensing (MSc, GRS-20306), Wageningen Univ.
2002 – 2003 "Reflectance Anisotropy", lecture in Imaging Spectroscopy (MSc, 2475, 2547), Univ. Zurich.
1997 – 1999 Teaching assistant (BSc, Practicals in Remote Sensing II, 2299, 2318, 2409), RSL, Univ. Zurich.

Participation in Training Programs

Mentee in the 4th 'Mentoring Deutschschweiz', mentoring program for highly qualified female researchers, coordinated by the University of Berne, CH (09/2006 – 01/2008).
2nd HYPER-I-NET Summer School, Earth Science and Applications using Imaging Spectroscopy, Wageningen University, NL (09/2008).

Administrative Duties

Lead of 'Young Academics in Spatial Ecology (YASE)', a peer-mentoring project of the Faculty of Sciences, University of Zurich (2009-2011).
Lead of Governance working group for merger of Inst. of Evolutionary Biology and Environmental Studies (2009/2010).

Contributions to International Programs and Initiatives

Vice-chair of Land Product Validation subgroup (Committee on Earth Observation Satellites/WGCV)
Co-lead of Surface Radiation Focus area (Committee on Earth Observation Satellites/WGCV/Land Product Validation).
Consultant to European Space Agency GlobAlbedo project within the Data User Programme.

Conference Organization and Scientific Committees

Session Organizer 'Gas exchange and global change in peatlands: From soil to satellite', ESA 2005, Montreal, CA.
Organizer and member of scientific committee of 'First International Symposium on Carbon in Peatlands', April 2007, Wageningen, NL.
Member of scientific committee ISPRS 10th Intl. Symp. Physical Measurements and Signatures in Remote Sensing, March 2007, Davos, CH.
Member of scientific committee, organizer of special sessions on Albedo, Int. Conf. on Land Surface Radiation and Energy Budgets, March 2009, Beijing, CN.

Memberships

IEEE Geoscience & Remote Sensing Society, American Geophysical Union, European Geosciences Union, Ecological Society of America.

Guest-Editorship

Peatlands and the Carbon Cycle: From Local Processes to Global Implications. Special Issue, Biogeosciences Discussions/ Biogeosciences, EGU, 2007.

Land Surface Radiation and Energy Budgets. Special Issue, IEEE J-STARS, 2010.

Reviewing Activities

Agricultural and Forest Meteorology, AGU Monograph Series, Biogeosciences EGU, IEEE Transactions on Geoscience and Remote Sensing, IGARSS (IEEE International Geoscience & Remote Sensing Symposium), International Journal of Remote Sensing, Journal of Photogrammetry and Remote Sensing, Remote Sensing of Environment.