

Curriculum Vitae

Daniel Odermatt

PERSONAL DETAILS

Full name: Daniel Sebastian Odermatt
Academic titles: Dr. sc. nat., Dipl. Geogr.
Nationality: Swiss
Born: 2.12.1978
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PROFESSIONAL APPOINTMENTS

Since 04/2018 Group leader tenure track, Remote Sensing group, Swiss Federal Institute of Aquatic Science and Technology (Eawag), Dübendorf, Switzerland
07/2014 – 12/2018 Managing director, Odermatt & Brockmann GmbH, Zurich, Switzerland
7/2012 – 11/2016 Research associate (10%), Aquatic Physics group, Swiss Federal Institute of Aquatic Science and Technology (Eawag), Kastanienbaum, Switzerland
7/2012 - 6/2014 Marie Curie IAPP postdoctoral researcher, Dr. Carsten Brockmann, Brockmann Consult GmbH, Geesthacht, Germany
10/2011 – 6/2012 Postdoctoral researcher (50%), Prof. Alfred Wueest, Aquatic Physics group, Swiss Federal Institute of Aquatic Science and Technology (Eawag), Kastanienbaum, Switzerland
10/2011 - 6/2012 Head of science division, NPOC Swiss National Point of Contact (50%), Prof. Michael Schaepman, Remote Sensing Laboratories, University of Zurich, Switzerland
5/2006 – 8/2011 Research assistant, Prof. Michael Schaepman and Prof. Klaus Itten, Remote Sensing Laboratories, University of Zurich, Switzerland
10/2003 – 3/2004 Visiting diploma student, Dr. Michael Lehning, Warning and Prevention Research Unit, Institute for Snow and Avalanche Research (SLF), Davos, Switzerland
10/2002 – 3/2003 Trainee, Dr. Jakob Rhyner, Warning and Prevention Research Unit, Institute for Snow and Avalanche Research (SLF), Davos, Switzerland

EDUCATION

10/2006 – 8/2011 PhD in natural science: “Spaceborne inland water quality monitoring”, awarded by the University of Zurich, Switzerland, 30.3.2012
10/1999 – 6/2005 Diploma in geography: “Analysis of the directional reflectance properties of snow”, awarded by the University of Zurich, Switzerland, 30.6.2005

PROFESSIONAL SERVICES

Committees:

- Member of the GEO Water Quality Initiative Aquawatch, Working Group 3 (since 2016)
- Co-organizer of the GEO Water Quality Summit, Geneva, Switzerland, 20-22.4.2015

Chairs:

- Session chair “Spectroradiometric applications for optically complex waters using current and future imaging spectrometers”, 6th workshop on Hyperspectral Image and Signal Processing: Evolution in Remote Sensing (WHISPERS), Lausanne, Switzerland, 24-27.6.2014

Reviewing for journals:

- Algorithms
- Environmental Engineering Service
- Great Lakes Research
- International Journal of Applied Earth Observation and Geoinformation
- Journal of Atmospheric and Solar-Terrestrial Physics
- Journal of Great Lakes Research
- Limnologica
- Remote Sensing
- Remote Sensing of Environment
- Sensors

Reviewing for funding bodies and operational services:

- Copernicus Global Land Service (EC/ESA)
- National Aeronautics and Space Administration (NASA, United States)
- National Science Centre (NCN, Poland)

SUPERVISED STUDENTS

PhD theses:

- Désirée Ruppen, “How bottom-up and top-down monitoring strategies impact social accountability for mining-related pollution in Zimbabwe”, Swiss Federal Institute of Technology, Zurich (ETHZ), since 2018, Prof. Bernhard Wehrli (ETHZ), Dr. Fritz Brugger (ETHZ)
- Mortimer Werther, “Optical-biogeochemical dynamics of oligotrophic lakes”, University of Stirling (USTIR), since 2018, Dr. Evangelos Spyros (USTIR), Dr. Stefan Simis (Plymouth Marine Laboratories), Prof. Andrew Tyler (USTIR)
- Remika Gupana, “Remote sensing of sun-induced fluorescence in optically complex waters”, University of Zurich (UZH), since 2018, Prof. Alexander Damm (UZH)
- Vincent Nouchi, “Inland water remote sensing from hyperspectral imagers”, Swiss Federal Institute of Technology, Lausanne (EPFL), 2014-2018, Prof. Alfred Wueest (EPFL, Eawag), Dr. Damien Bouffard (Eawag)

MSc theses:

- Sonia Dupuis, “Validation of Landsat-8 and Sentinel-2 algorithms for atmospheric correction on Lake Geneva”, Swiss Federal Institute of Technology, Lausanne (EPFL), 2017, co-supervision with Prof. Alfred Wueest (EPFL), Vincent Nouchi (EPFL)
- Lukas Heiniger, “Distribution of Physical-Biological Parameters in Inland Waters for Remote Sensing”, Swiss Federal Institute of Technology, Zurich (ETHZ), 2012, co-supervision with Prof. Taras Gerya (ETHZ), Prof. Alfred Wueest (Eawag)
- Mona Stockhecke, “The Annual Particle Cycle of Lake Van: Insights from Space, Water Column and Sediments”, University of Zurich (UZH), 2008, co-supervision with Prof. Klaus Itten (UZH), Dr. Ma-

thias Kneubuehler (UZH), Dr. Flavio Anselmetti (Eawag), Dr. Michael Sturm (Eawag)

BSc theses:

- Stephan Mueller, “Korallen, Makrophyten, Sedimente – Fernerkundung des Benthos”, University of Zurich (UZH), 2009, co-supervision with Dr. Mathias Kneubuehler (UZH)
- Isabel Plana, “Methoden zur Bestimmung von Wasserinhaltsstoffen in Case 2 Gewässern”, University of Zurich (UZH), 2008, co-supervision with Dr. Mathias Kneubuehler (UZH)

TEACHING CURRICULUM

Regular courses:

- ENV425: “Limnology”, one lecture and one practical, ~20 students, Swiss Federal Institute of Technology, Lausanne, Switzerland, since 2018
- GEO442: “Advanced remote sensing IVb, Spectroradiometry and imaging spectrometry”, one lecture and two practicals, ~20 students, University of Zurich, Switzerland, since 2018
- GEO374: “Remote sensing of water systems”, one lecture, ~30 students, University of Zurich, Switzerland, since 2018
- GEO442: “Advanced remote sensing IVb, Spectroradiometry and imaging spectrometry”, one lecture, ~20 students, University of Zurich, Switzerland, autumn semester 2008
- GEO214.2: “Exercises remote sensing I”, one lecture and three practicals, ~120 students, University of Zurich, Switzerland, autumn semester 2006
- GEO442: “Advanced remote sensing IVb, Spectroradiometry and imaging spectrometry”, tutor, ~20 students, University of Zurich, Switzerland, spring semester 2004

Training courses:

- ESA-MOST Dragon Land Remote Sensing Course, “Advanced hyperspectral applications using SNAP and Sentinel-3A OLCI data”, “Advanced thermal applications using SNAP and Sentinel-3A SLSTR data”, two practicals, ~50 students, Yunnan Normal University, Kunming, China, 20-25.11.2017
- ESA-MOST Dragon Land Remote Sensing Course, “Advanced optical S2 Toolbox and S2A data”, “Advanced hyperspectral S2 Toolbox, MERIS and OLCI”, “Advanced thermal S3 Toolbox, AATSR, SLSTR, Landsat and MODIS” three practicals, ~30 students, Tianjin Normal University, Tianjin, China, 16-21.11.2015
- ESA-MOST Dragon Land and Water Remote Sensing Course, “Sentinel-3 Toolbox and Advanced Thermal Applications”, one practical, ~30 students, Jiangxi Normal University, Nanchang, China, 13-18.10.2014
- ESA 4th Advanced Training Course in Land Remote Sensing, “ESA and Third Party Toolboxes: BEAM”, lecture and two practicals, ~20 students, Harokopio University, Athens, Greece, 1-5.7.2013
- ESA-MOST Dragon Advanced Training Course in Land Remote Sensing, “Advanced Optical Applications”, two practicals, ~30 students, National Key Laboratory of Microwave Imaging Technology, Beijing, China, 15-20.10.2012
- JRC Training Course on Methods and Applications of Ocean Colour Remote Sensing in African Coastal and Regional Seas, one special seminar “Remote Sensing of Inland Waters” and ten practicals, ~20 students, Kenya Marine and Fisheries Institute, Mombasa, Kenya, 24.9-5.10.2007

INVITED PRESENTATIONS

Seminars:

- “A New Space Odyssey? How remote-sensing offers new opportunities for monitoring the safety of the world’s surface water”, World Bank Water, Poverty and Economics GSG Brown Bag Seminar, World Bank, Washington D.C., United States, 31.7.2017
- “Earth Observation Data for Freshwater Monitoring”, WWF/IUCN Brown Bag Seminar, IUCN, Gland, Switzerland, 22.9.2015
- “Recent progress and future opportunities in the assessment of lake water quality from space”, COST-NETLAKE seminar, INRA, Thonon, France, 3.7.2015
- “Biodiversity indication for 300 lakes worldwide using ENVISAT”, GEO Water Quality Webinar Series, available at www.earthobservations.org/webinar_wq.php, 29.1.2015
- “Remote sensing of inland waters: From bio-optical algorithms to ecosystem indicators”, Environmental Engineering Seminar Series, Swiss Federal Institute of Technology, Lausanne, Switzerland, 14.5.2013
- “Operationalization of model-based inland water constituent algorithms”, Current Topics in Limnology Seminar, Limnological Station TU Munich, Iffeldorf, Germany 3.2.2010
- “Remote sensing applications for prealpine lakes”, Surface Waters Research and Management Seminar, Eawag, Kastanienbaum, Switzerland, 16.2.2009

Conferences:

- “Overview of bio-optical algorithms for open ocean, coastal and inland water transitions”, Breakout Session Address, International Ocean Colour Science Meeting (IOCS) 2017, Lisbon, Portugal, 17.5.2017
- “The future of water quality from space”, Keynote Presentation, International Ocean Colour Science Meeting (IOCS) 2015, San Francisco, United States, 17.6.2015