

Curriculum Vitae

Prof Dr Alfred Wüest

Born on 28 August 1956, in Grossdietwil LU Switzerland

Married to Lisbeth Stocker, 2 children

Swiss Citizen

Languages: English, German, French (medium; orally only)

Addresses

Office: Eawag, *Surface Waters - Research and Management*
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Education

PhD Swiss Federal Institute of Technology (ETH) Zürich and Swiss Federal Institute of Aquatic Science and Technology (Eawag), Dübendorf, Switzerland, exam 1987

Post-diploma Study of "Urban Hydrology and Water Management", Swiss Federal Institute of Technology (ETH), Zürich, diploma 1984

MSc Experimental Physics, University of Zürich, 1976 to 1982, diploma 1982.

Professional Experience

Since 2015 Member of the Eawag Directorate

Since 2013 Director of the Limnology Center, EPFL Lausanne

Since 2012 Full professor in Physics of Aquatic Systems, ENAC, EPFL Lausanne (Margaretha Kamprad Chair of Aquatic Science and Limnology)

2009 Scientific visitor at the department of Civil and Environmental Engineering, University of British Columbia, Vancouver, Canada

2008 Scientific visitor at the School of Mines, University of Zambia (UNZA), Lusaka, Zambia

2006 to 2012 Department head of *Surface Waters - Research and Management*, Eawag

2005 to 2008 Member of CCES Management Committee (Competence Centre for Environment and Sustainability)

2004 Member of Eawag Planning Committee

Since 2002 Adjunct professor (Titular professor) on Aquatic Physics, ETH Zürich

2000 to 2005 Department head of *Applied Aquatic Ecology*, Eawag

1998/99 Scientific visitor at the Institute of Ocean Sciences, Sidney, BC, Canada

1996/97 Department head of *Environmental Physics*, Eawag

Since 1989 Head of the *Aquatic Physics* group, Eawag

1987/88 Swiss National Science Foundation post-doc at the *Applied Physics Laboratory*, University of Washington, Seattle, USA

1984 to 1987 Research assistant, Eawag

1982/83 Cerberus Männedorf, Smoke Detector Company.

Major Research Areas

Basic research

- Anthropogenic influences on aquatic ecosystems and mitigation measures
- Lake ecology, geochemical fluxes and balances, management and restoration of lakes
- Two dimensional structures of natural waters, including remote sensing
- Small-scale turbulence and mixing in stratified natural waters: boundary layer mixing, stratified turbulence, double-diffusion.

Applied research

- Oxygen consumption in lakes / reservoirs, oxygenation, aeration and artificial destratification of natural waters
- Downstream effects of hydropower, such as by pumped-storage operation
- Heat budgets and thermal regimes of rivers and reservoirs (heat use)
- Lake Kivu methane dynamics and methane harvesting.

Teaching

(i) Regular class teaching at ETHZ/EPFL

- Since 2014 Limnology (EPFL)
- 2005 to 2012 Transport and mixing in natural waters
- 2005 to 2011 Management of aquatic systems
- SS 2006 to 2008 Environment fluid dynamics II
- SS 2000 to 2008 Science and politics of international freshwater management; doctoral students seminar
- SS 1995 to 2005 Aquatic physics II (50%, for 3 terms 100%).
- WS 1994 to 1999 Aquatic physics I (50%)
- WS 1990 to 1993 Physical limnology and oceanography (50%)
- WS 1989 to 1994 Introduction to physical oceanography (100%)
- SS 1986 Colloquium: technology, mankind and environment.

(ii) Teaching at Eawag-Peak courses (few days duration; one-time)

- River revitalisation and hydro-peaking
- Summer school: Modelling of substances in aquatic systems (one full week)
- Residual flow estimation for hydropower certification / labelling
- Modelling of lakes and reservoirs with AQUASIM (one-dimensional)
- Possibilities and limits of physical and chemical in-situ measurements in natural waters
- Modelling of natural systems
- The role of suspended particles and sediments in aquatic systems
- One dimensional modelling of biogeochemical processes in lakes
- Structures and processes in aquatic systems.

(iii) Teaching at other institutions (few days/weeks duration; one-time)

- Modelling mixing and transport in lakes, harbors and estuaries. ICTP-University of Trieste, Italy. Winter short course, February 2014 (lecturer)
- Environmental fluid mechanics – lakes and reservoirs. University Joseph Fourier, LEGI, Grenoble, France. Fall semesters 2011/12/13/14 (lecturer)
- Integrated water resources management. Bern University of Applied Sciences, Biel. August 2010 (lecturer)
- Environmental fluid mechanics – theory, experiments, applications: Universidad de Chile, Santiago de Chile. January 2009
University of Karlsruhe, Germany. June 1999 and June 2006
University of Dundee Scotland. August 2001

- University of Budapest, Hungary. June 2004 (5-times lecturer)
- Symposium Lake Brienz (Zwischen Wasserkraftnutzung und Nährstoffrückgang), University of Bern (SGHL, GSA, UniBe and Eawag). September 2005 (organizer)
- Limnology course: travaux pratiques en limnologie. Cycle postgrade en sciences de l'environnement, EPF Lausanne. Every second year in the 1990s (lecturer)
- Risk and safety – dispersion models in surface waters, ETH Zürich and EPFL. Every second year in the 1990s (lecturer)
- International water management course. Swiss-Re, Rüslikon, Switzerland. July 2003 and September 2004
- Grand Combin Summer School - Fundamental problems in geophysical and environmental fluid dynamics. Aosta Italy. June 2001 (lecturer)
- Environmental fluid dynamics course. Departament de Física, Universitat de Girona Spain. September 2000 (lecturer)
- International Workshop - Physical processes in natural waters. Eawag, Kastanienbaum. September 1996 (organizer and initiator since 1996; 17-times)
- Lakes as images of their watershed. Swiss Hydrological and Limnological Society. Autumn 1994 (organizer)
- Use of tracer technology to study dispersion of effluents in surface waters. MINT Malaysia. September 1994, IAEA Vienna and MINT Malaysia (lecturer).

Other Professional Activities

a) Current expert and consulting activities

- Member of the Committee for the Doctoral Program in Civil and Environmental Engineering, EPFL (since 2014)
- Member of the Advisory Board to the Swiss Competence Centre for Energy Research
- Member of the Advisory Board to Forschungsstelle Nachhaltige Energie- und Wasserversorgung, University of Basel
- Co-editor of Aquatic Sciences
- Expert of the external review panel to Tahoe Environmental Research Facility, University of California, Davis
- Expert to Netherlands Commission for Environmental Assessment (MER)
- Member of the Scientific/Technical Board for Lake Restoration on the Swiss Plateau, ASSAN
- Member of the Group of Expert for IGKB (Lake Constance International Commission (Sachverständiger)
- Ercoftac, special interest group SIG5 in *Environmental Fluid Mechanics*.

b) Former expert and consulting activities (selection)

- Associate editor of *Limnology Oceanography: Environments and Fluids*
- Analysis of a pollution incident in Lake Zürich (Awel, Zürich, confidential)
- Feasibility study for a stormwater discharge tunnel Sihl-to-Lake Zürich (Awel, Zürich)
- Consulting on problems of lake water cooling system for CSCS Supercomputing, Lugano (AquaPlus)
- Consulting on problems of lake water heating/cooling system of UniL/EPFL
- Feasibility study for heat use from Lake Biel
- Feasibility study for heat use from Lake Lucerne (Uwe Luzern) and Bay of Horw (Seenergy, Etienne Engineering)
- Feasibility study for heat use from Lake Zürich
- Consulting on the clean-up of Lake Dianchi Kunming (Project Clear Lake), China

- Feasibility study for pumped-storage plant between Lago Bianco and Lago Poschiavo (Repower)
- Feasibility study for pumped-storage plant between Brienzensee and Grimsel (KWO)
- Estimation of future oxygen depletion rates in Sempachersee and Baldeggersee (Uwe Lucerne)
- Associate editor of *Water Resources Research* (2007 to 2010; 2 terms)
- Consulting on phosphorus load to Lake Zug (AfU Zug)
- Expert working group on Lake Kivu gas extraction (Worldbank and Government of Rwanda)
- Feasibility of pump-storage power-plant Lake Zug – Aegerisee (WWZ Energie, Zug)
- Consulting on aeration of Greifensee (Awel Zürich)
- Avoiding turbidity in super-clear Caumasee (Prof. Löw ETH, AfU Graubünden)
- Consulting on the effect of aeration of Pfäffikersee and Türlensee (Awel Zürich)
- Advisor for dumping NEAT-outbreak into Urnersee (AfU Uri, EBP, and AquaPlus)
- Head of the expert group “Assessment of ecological changes in Brienzensee” (AWA Bern)
- Consulting on monitoring of deposited explosives in Swiss lakes (VBS)
- Consulting on degassing of Lake Nyos (Gov. Cameroon and University of Savoie, France)
- Consulting on acceptable phosphorus loads to Lauerzersee (AfU Schwyz)
- Consulting on design of sewage discharge into Lake Constance (ARA Morgental)
- Member of the Swiss Hydrology Committee (CHY, Swiss Academy of Sciences)
- Member of the Scientific Coordinating Committee for the Nyiragongo crisis (UN-OCHA) and emergency assessment of Lake Kivu after Nyiragongo Vulcano eruption (Solidarité, ECHO, and UN-OCHA)
- Consulting on nutrient monitoring on Lake Ohrid Macedonia/Albania (seco Bern)
- Assessment of phosphorus load to Greifensee (Awel Zürich)
- Assessment of phosphorus loads to Baldeggersee, Sempachersee (AfU Lucerne)
- Assessment of enhanced oxygen demand in summer 2001 in Hallwilersee (AfU Aargau)
- Feasibility study for a tunnel through Lake Zürich (Tiefbauamt and Awel Zürich)
- Lake level control of Lauerzersee (AfU Schwyz and AquaPlus)
- Design of sewage discharge in Lake Alpnach (ARA Sarneraatal)
- Drinking water intake in Silsersee (AfU Graubünden)
- Assessment of the artificial warming of the River Aare and Lake Biel by Mühleberg Nuclear Power Plant (GBL, AWA Bern)
- Assessment of bubble plume operation in Sempachersee (AfU Lucerne)
- Assessment of ten years of aeration of lakes (AfUs of Aargau and Lucerne)
- Assessment of turbidity in Brienzensee and its relation to hydropower operation (AWA Bern)
- Assessment of bio-geochemical mass fluxes in Lake Zug (AfU Zug)

All related reports are listed below.

c) Professional associations

- AGU, American Geophysical Union
- AMS, American Meteorological Society
- ASLO, American Society of Limnology and Oceanography
- SGHL, Swiss Society of Hydrology and Limnology.

Academic honours

- AEESP for supervising Outstanding Doctoral Dissertation (L Bryant), 2011
- Outstanding L&O Reviewer 2006
- Otto Jaag Award (Gewässerschutzpreis) 1987.

PhD students supervised

1. Schlatter J (1991). Schwefelhexafluorid als Tracer zum Studium von Mischungsprozessen in Seen. *PhD thesis ETH nr. 9'596*. Co-examiner (Examiner: D.M Imboden).
2. Münnich M (1993). On the influence of bottom topography on the vertical structure of internal seiches. *PhD thesis ETH nr. 10'434*. Co-examiner (Examiner: D.M Imboden).
3. Peeters F (1994). Horizontale Mischung in Seen. *PhD thesis ETH nr. 10'476*. Co-examiner (Examiner: D.M Imboden).
4. Gloor M (1995). Methode der Temperaturmikrostruktur und deren Anwendung auf die Bodengrenzschicht in geschichteten Wasserkörpern. *PhD thesis ETH nr. 11'336*. Co-examiner (Examiner: D.M Imboden)
5. Simon A (1997). Turbulent mixing in the surface boundary layer of lakes. *PhD thesis ETH nr. 12'272*. Co-examiner (Examiner: D.M Imboden).
6. Jonas T (2001). Convective mixing processes in natural waters. *PhD thesis ETH nr. 14'339*. Co-examiner (Examiner: C Schär).
7. McGinnis D (2004). Two-dimensional lake and reservoir modeling: Natural and plume-induced mixing mechanisms. *PhD thesis VirginiaTech USA*. External examiner (Examiner: J Little).
8. Teodoru C.R (2005). Nutrients retention capacity of the Danube – Black Sea system. *PhD thesis ETH*. Co-examiner (Examiner: B. Wehrli).
9. Matzinger A (2005). Is anthropogenic nutrient input jeopardizing unique Lake Ohrid? – Mass flux analysis and management consequences. *PhD thesis ETH nr 16'390*. Examiner.
10. Finger D (2006). Effects of hydropower operation and oligotrophication on internal processes in Lake Brienz. *PhD thesis ETH nr 16'827*. Examiner. Awarded by Otto Jaag Gewässerschutzpreis for Excellent Dissertation.
11. Brand A (2008). The influence of bottom boundary turbulence on sediment solute dynamics. *PhD thesis ETH nr 17'394*. Co-examiner (Examiner: B Wehrli).
12. Pasche N (2009). Nutrient cycling and methane production in Lake Kivu. *PhD thesis ETH nr 18'606*. Examiner. Awarded by Swiss Hydrobiological Society for Excellent Dissertation.
13. Bryant L.D (2010). Dynamic forcing of oxygen, iron, and manganese fluxes at the sediment-water interface in lakes and reservoirs. *PhD thesis VirginiaTech USA*. External examiner (Examiner: J. Little). CH2M HILL AEESP Outstanding Doctoral Dissertation Award.
14. Lorrai C (2010). Estimating benthic boundary layer oxygen dynamics in lakes. *PhD thesis ETH nr 19'241*. Examiner.
15. Kunz M.J (2010). Effect of large dams in the Zambezi River Basin: changes in sediment, carbon and nutrient fluxes. *PhD thesis ETH nr 19'441*. Examiner.

16. Del Sontro T (2011). Quantifying methane emissions from reservoirs: From basin-scale to discrete analyses with a focus on ebullition dynamics. *PhD thesis ETH nr 19'670*. Co-examiner (Examiner: B Wehrli)
17. Bonalumi M (2011). Effect of pumped-storage operations on temperature, turbidity and sedimentation in reservoirs and possible mitigation measures. *PhD thesis ETH nr 20'018*. Co-examiner (Examiner: F Anselmetti).
18. Sommer T (2013). Double diffusion in Lake Kivu. *PhD thesis ETH nr 21'463*, Examiner. ETH Zürich medallion for exceptional thesis.
19. Ross K.A (2013). The effect of subaquatic volcanism on the structure of Lake Kivu in the Albertine Rift; East Africa. *PhD thesis ETH nr 21'547*, Examiner.
20. Currently, five ongoing

Additional PhD student exams

21. Saggio A (1999). Large internal waves in stratified lakes. *PhD thesis University of Western Australia*. External examiner (Examiner: J Imberger).
22. Keller P (2001). Imaging spectroscopy of lake water quality parameters. *PhD thesis Remote Sensing Laboratories, University of Zürich*. Co-examiner (Examiner: K.I Itten).
23. Antenucci J (2001). Internal gravity waves in large lakes. *PhD thesis University of Western Australia*. External examiner (Examiner: J Imberger).
24. Fer I (2001). Dynamics of winter cooling in Lake Geneva. *PhD thesis EPFL, Lausanne nr 2'398*. External examiner (Examiner: W.H Graf).
25. Fisher T.S.R (2002). Limnology of the meromictic Island Copper Mine pit lake. *PhD thesis Civil Engineering, University of BC*. External examiner (Examiner: G Lawrence).
26. Yates P (2007). Bottom boundary mixing. *PhD thesis University of Western Australia*. External examiner (Examiner: J. Imberger).
27. Amini A (2008). Contractile floating barriers for confinement and recuperation of oil slicks. *PhD thesis EPFL Lausanne*. External examiner (Examiner: A Schleiss).
28. Chanudet V (2008). Colloid characterization and dynamics in two alpine lakes with contrasting trophic status. *PhD thesis University de Genève, Faculty des Sciences*. External examiner (Examiner: J Dominik).
29. Dugué V (2013) Influencing River Morphodynamics By Means of a Bubble Screen: Application to Open-Channel Bends. *PhD thesis EPFL nr 5'676*. Co-examiner (Directors: A. Schleiss and K. Blanckaert).
30. Le Thi A.D. (2013) Thermal structure and circulation pattern of Lake Geneva applying three-dimensional (3D) Finite Element modeling. *PhD thesis University of Geneva*. Co-examiner (Examiner: W. Wildi).
31. Hilbe M (2013). Subaqueous morphology and natural hazards in perialpine Lake Lucerne (Central Switzerland). *PhD thesis ETH nr 21'459*. Co-examiner (Examiner: F Anselmetti).
32. Cohen Liechti T (2013) Influence of dam operation on water resources management under different scenarios in the Zambezi River Basin considering environmental objectives and hydropower. *PhD thesis EPFL nr 6012*. Examiner president (Examiner: A. Schleiss and J-L. Boillat).

33. Cortes Cortes A (2014) Splitting gravity currents in stratified systems. *PhD thesis Universidad de Granada*. Examiner president (Examiner: F.J. Rueda Valdivia et al).
34. Hoyer A.B (2014) The physical control of contaminant distribution in aquatic ecosystems. *PhD thesis Universidad de Granada*. Examiner president (Examiner: F.J. Rueda Valdivia et al).

Diploma and Master Students

- Uhde M (1992). Mischungsprozesse im Hypolimnion des meromiktischen Lago Cadagno: Eine Untersuchung mit Hilfe natürlicher und künstlicher Tracer. Master thesis *Eawag and University of Freiburg*, 90 p.
- Scheidegger A (1992). Sauerstoffhaushalt im Hallwilersee: Eine Untersuchung des Einflusses der internen Massnahmen zur Seesanieung. Master thesis *Eawag/ETH Zürich*, 112 p.
- Gruber N (1993). Kohlenstoff- und Sauerstoffkreislauf im Soppensee: Beobachtung des Tages- und Saisonzyklus und Modellierung mit Hilfe von Ein- und Mehrboxmodellen. Master thesis *Eawag/ETH Zürich*, 159 p.
- Müller B (1993). Sauerstoffentwicklung im Zugersee. Master thesis *Eawag/ETH Zürich*, 71 p.
- Dimai A (1993). Die turbulente Sediment-Wasser Grenzschicht in Seen. Master thesis *Eawag/ETH Zürich*, 85 p.
- Omlin M (1994). Bestimmung der Energiedissipation aus hochaufgelösten Temperaturzeitreihen in Wasser. Master thesis *Eawag/ETH Zürich*, 72 p.
- Keller P (1995). Windinduzierte Turbulenz in der Oberflächenschicht von Seen. Master thesis *Eawag/ETH Zürich*, 57 p.
- Suter H.P (1995). Brienersee Überwachung 1994: Physikalische Charakterisierung, Schwebstoffdynamik und Auswertungsunterstützung. Master thesis *Eawag/ETH Zürich*, 116 p.
- Mathis B (1996). Kleinskalige turbulente Mischung an der Mainauschwelle im Bodensee. Diplomarbeit *Eawag/ETH*, 72 pp.
- Meile C (1996). Modellierung des Stickstoffkreislaufes im Luganersee-Nordbecken. Master thesis *Eawag/ETH Zürich*, 108 p und Anhang.
- Meier W.K (1996). Veränderung des Temperaturhaushaltes der Aare durch das Kernkraftwerk Mühleberg. Master thesis *Eawag/ETH Zürich*, 87 p und Anhang.
- Bonderer J (1997). Temperaturmodellierung im Luganersee-Nordbecken. Master thesis *Eawag/ETH Zürich*, 116 p.
- Ramisch F (1997). Kalziumkreislauf im Nordbecken des Luganersees. Master thesis *Eawag/ETH Zürich*, 54 p.
- Bonjour C (1998). Modellierung des Wärmeaustausches über die Wasseroberfläche eines Gebirgsbachs. Master thesis *Eawag/ETH Zürich*.
- Moosmann L (1998). Effekte kleinskaliger Strömungen auf die Besiedlung von Blephariceriden-Larven in Gebirgsbächen. Master thesis *Eawag/ETH Zürich*, 63 p.
- Matzinger A (2000). Nutrient dynamics in the Arrow Reservoir. Master thesis *Eawag/ETH Zürich*, 58 p.

- Bocaniov S (2002). Nutrient and sediment retention in the Iron Gate Reservoir (Romania). Master thesis *Unesco-IHE Institute for Water Education, Delft, The Netherlands*.
- Frey M (2003). Temperaturmodellierungen – Auswirkungen von Kraftwerken auf das Temperaturregime in Zuflüssen der Rhone. Master thesis *Eawag/ETH Zürich*, 123 pp.
- Stewart G (2003). Kinetic energy balance in Lake Hallwil. Master thesis *Unesco-IHE Institute for Water Education, Delft, The Netherlands*.
- Hoyle-Smith C (2004). Phosphorus cycling in Lake Brienz, Switzerland. Master thesis *Unesco-IHE Institute for Water Education, Delft, The Netherlands*.
- Jaun L. (2005). Lichtregime im Brienzersee. Master thesis *Eawag/ETH Zürich*, 72 p.
- Robele S (2005). Determination of the contribution of light attenuating substances in lakes and comparison of different lakes with respect to optical properties. Master thesis *Unesco-IHE Institute for Water Education, Delft, The Netherlands*.
- Kunz M (2006). Springs in Lake Ohrid. Master thesis *Eawag/ETH Zürich*.
- Jarc L (2007). Restratification of methane-depleted deep-water in Lake Kivu. Master thesis *Eawag/ETH Zürich*.
- Matter M (2007). Subaquatic Springs and carbonate precipitation in Lake Ohrid. Master thesis *Eawag/ETH Zürich*.
- Muvundja F (2010). Nutrient input to Lake Kivu. External Examiner (Examiner: Fred Bugenyi, University of Kampala).
- Jordanoska B (2010). Physicochemical characteristics of some surface and subaquatic springs of the Lake Ohrid. External Examiner (Examiner: T Stafilov, University of Skopje).
- Heiniger L. (2012). Distribution of Physical-biological parameters in inland waters for remote sensing - radiative transfer modeling on the example of Greifensee. Master thesis *Eawag/ETH Zürich*.
- André M. (June 2013). Three-dimensional hydrodynamics modeling of Lake Geneva. Master thesis EPFL Lausanne. Master thesis EPFL Lausanne (*Supervisor: Damien Bouffard*).
- Gaudard A. (June 2014). Towards a better, sustainable use of the energy of our lakes. Master thesis EPFL Lausanne. Master thesis EPFL Lausanne (*Supervisor: Damien Bouffard*). Awarded by the prix CSD.
- Kiefer I. (June 2014). Analysis of chlorophyll variability in Lake Geneva using remote sensing techniques. Master thesis EPFL Lausanne. Master thesis EPFL Lausanne (*Supervisors: Damien Bouffard, Daniel Odermatt*). Awarded by the prix Fondation Luce Grivat. Awarded by the prix ARPEA.
- Schenk, J. (June 2015). Numerical modeling of lakes: 3D model validations and 1D model applications to Lake Morat. Master thesis EPFL Lausanne (*Supervisor: Love Raman and Damien Bouffard*).

Grants

On-going funding

- R'Equip, Léman exploration (LÉXPLORE), Grant 206021_157779, period = 01.01.2015 to 31.12.2015 from *Swiss National Science Foundation* (340 kFr). per 1 January

2015 (12 months); Split with UniGE, Geneva on 50%/50% basis. Co-applicants: Prof Bastiaan Ibelings (UniGE) and Dr Natacha Pasche (EPFL).

- **Oxygen depletion in a deep perialpine lake**, Grant 200021-146652; period = 06.2013 to 05.2016 from *Swiss National Science Foundation* (195 kFr).
- **Particle distribution and fluxes in Lake Biel (assessing drinking water intake)**. Grant from *ESB Biel* (276 kFr). End 08.2016.
- **Lake Ladoga – Life under ice**, private sponsor (~1.2 mio CHF)

Past grants

- **Lake Kivu - turbulence and double diffusion in permanent stratification**, Grant 200020-140538; period = 04.2012 to 04.2015 from *Swiss National Science Foundation* (210 kFr). Including prolongation.
- **HydroNet**: Modern methodologies for the design, manufacturing and operation of pumped storage power plants. Grant from *Competence Centre for Energy and Mobility* (128 kFr) Prolongation granted, ends 2015.
- **KLIMBO - Wärmenutzung im Bodensee**. Grant from *INTERREG* (180 kEuro). Ends 2015
- Twelve grants from *Swiss National Science Foundation* (several of them together with Prof D.M. Imboden), with contributions varying from 100 to 400 kF. Most recent: Turbulence and fluxes in stratified natural waters (326 kF); Lake Kivu - turbulence and double diffusion in permanent stratification (332 kFr).
- **Sciex**: HAWAQIR: Hyperspectral assessment of Water Quality in Reservoirs: Grant for support of PhD student from Warsaw University of Tech, Poland (~60 kFr).
- The African dams project **Adapt**: Planning and operation of large dams to social needs and environmental constraints – integrated water resource management study in the Zambezi Basin. Grant from *Competence Centre for Environment Sustainability* (~200 kFr).
- Two funding from *Swiss National Science Foundation and Swiss Development Corporation*: Nutrient cycling and methane production in Lake Kivu (326 kF). **Lake Kivu - learning from the past for managing its future**. Grant from *Swiss National Science Foundation and Swiss Development Corporation* (400 kFr).
- Two *SCOPES collaborations with East-Europe (Swiss National Science Foundation)*: Nutrient budget Iron Gate (Prof B. Wehrli); Subaquatic springs in ancient Lake Ohrid, Macedonia (67 kF).
- Ecological changes in Lake Brienz - downstream effects of hydropower operation. Grant from BafU, KWO, AWA Canton of Bern and Eawag (funds for entire project: 900 kF; for my group: ~200 kF).
- Monitoring Lake Ohrid. Grant from the *Swiss Secretariat of Economy* (195 kF).
- Lake Kivu safety assessment. Grant from UN-OCHA, Geneva (20 k\$).
- Four *European Committee projects*

MITEC (Improved microstructure measurement technologies for marine near surface flux studies),

CONTINENT (High-resolution Continental paleoclimate record in Lake Baikal: A key-site for Eurasian teleconnections to the North Atlantic Ocean and monsoonal system)

CRIMEA (Contribution of high intensity gas seeps in the Black Sea to the methane emission to the atmosphere).

Freshmon - High resolution freshwater monitoring: FreshMon GMES downstream services. Grant from *European Committee Project 7th Framework* (~300 kEuro).

- One *European Committee Concerted Action* (**CARTUM**; Comparative analysis and rationalization of second-moment turbulence; Prof. Baumert, Germany).
- Two *INTAS projects* (Thermal structure and circulation patterns in ice-covered lakes: measurements and modeling; Prof. Bengtsson, Sweden) and **MULTISGAS** (Multi-disciplinary study of natural gas seeps in Lake Baikal; Prof. Marc deBatist, Belgium).
- Numerous consulting funds (see consulting list); ~50 kF / year.

Publications

a) Articles in peer-reviewed journals

2015

Toffolon M., A. Wüest. and T. Sommer (2015). Minimal model for double diffusion and its application to Kivu, Nyos and Powell Lake, *Journal of Geophysical Research* (revisions).

Kiefer, I, D. Odermatt, O. Anneville; A. Wüest, D. Bouffard (2015). Application of remote sensing for the optimization of in-situ sampling for monitoring of phytoplankton abundance in a large lake. *Science of the Total Environment. Science of the Total Environment* **527–528**: 493–50. Doi: 10.1016/j.scitotenv.2015.05.011

Ross K.A., E. Gashugi, A. Gafasi, A. Wüest, and M. Schmid (2015). Characterisation of the subaquatic groundwater discharge that maintains the permanent stratification within Lake Kivu; East-Africa. *PLoS ONE* **10(3)**: e0121217. doi:10.1371/journal.pone.0121217

Tsimitri C., B. Rockel, A. Wüest, N. M. Budnev M. Sturm, and M. Schmid (2015). Drivers of deep water renewal events observed over 13 years in the South Basin of Lake Baikal, *J. Geophys. Res. Oceans* **120(3)**: 1508–1526, doi: 10.1002/2014JC010449.

2014

Fink, G., M. Schmid, B. Wahl, T. Wolf and A. Wüest (2014a). Heat flux modifications related to climate-induced warming of large European lakes. *Water Resources Research*. **50**: 2072 – 2085, doi: 10.1002/2013WR014448.

Fink, G., M. Schmid and A. Wüest (2014b). Large lakes as sources and sinks of anthropogenic heat: Capacities and limits. *Water Resources Research*. **50**: 7285–7301, doi:10.1002/2014WR015509.

Müller B., R. Gächter, and A. Wüest (2014). Accelerated water quality improvement during oligotrophication in peri-alpine lakes. *Environ. Sci. Technol.* **48(12)**: 6671–6677, doi: 10.1021/es4040304.

Muvundja, F.A., A. Wüest, M. Isumbiso, M. B. Kaningini, N. Pasche, P. Rinta and M. Schmid (2014). Modelling Lake Kivu water level variations over the last seven decades. *Limnologica - Ecology and Management of Inland Waters*, **47**: 21-33, doi:10.1016/j.limno.2014.02.003.

- Pitarch J., D. Odermatt, M. Kawka, and A. Wüest (2014a). Retrieval of vertical particle concentration profiles by optical remote sensing: a model study. *Optics Express*, **22**(S3): A947 - A959, doi: 10.1364/OE.22.00A947.
- Pitarch J., D. Odermatt, M. Kawka, and A. Wüest (2014b). Retrieval of particle scattering coefficients and concentrations by genetic algorithms in stratified lake water. *Remote Sensing*, **6**: 9530-9551, doi:10.3390/rs6109530
- Scheifele B., R. Pawlowicz, T. Sommer, and A. Wüest (2014). Double diffusion in saline Powell Lake, British Columbia. *Journal of Physical Oceanography*, **44**(11): 2893-2908. doi:10.1175/JPO-D-14-0070.1.
- Schmid, M., S. Hunziker, and A. Wüest (2014). Lake surface temperatures in a changing climate: a global sensitivity analysis. *Climatic Change*. **124**(1-2): 301-315, doi:10.1007/s10584-014-1087-2.
- Sommer, T., J.R. Carpenter, and A. Wüest (2014). Double-diffusive interfaces in Lake Kivu reproduced by direct numerical simulations. *Geophysical Research Letters*, **41**: 5114–5121, doi: 10.1002/2014GL060716.
- Toffolon M., S. Piccolroaz, B. Majone, A-M. Soja, F. Peeters, M. Schmid and A. Wüest (2014). Prediction of surface temperature in lakes with different morphology using air temperature. *Limnology and Oceanography* **59**(6): 2185–2202. doi: 10.4319/lo.2014.59.6.0000.
- Wüest A, Anselmetti FS, Arey JS, Ibelings BW, Loizeau JL, Vennemann T, Lemmin U (2014) Into the abyss of Lake Geneva: the elemo interdisciplinary field investigation using the MIR submersibles. *Aquatic Sciences* **76**(Suppl 1): S1-S6, doi 10.1007/s00027-014-0353-8.

2013

- Finger, D., A. Wüest, and P Bossard (2013). Effects of oligotrophication on primary production in peri-alpine lakes. *Water Resources Research* **49**(8): 4700–4710, doi:10.1002/wrcr.20355.
- Jordanoska, B., T. Stafilov, A. Wüest, (2013). Assessment of ecological importance and anthropogenic change of subaquatic springs in ancient Lake Ohrid. *Water Research and Management*, **3**(2): 9-17.
- Kunz, M.J., D.B. Senn, B. Wehrli, E. M. Mwelwa, and A. Wüest (2013). Optimizing turbine withdrawal from a tropical reservoir for improved water quality in downstream wetlands, *Water Resources Research* **49**: 5570–5584, doi:10.1002/wrcr.20358
- Razmi, A.M., D.A. Barry, R. Bakhtyar, N. Le Dantec, A. Dastgheib, U. Lemmin, and A. Wüest (2013). Current variability in a wide and open lacustrine embayment in Lake Geneva (Switzerland). *J Great Lakes Research* **39**: 455 – 465, doi: 10.1016/j.jglr.2013.06.011
- Sommer, T., J.R. Carpenter, M. Schmid, R. G. Lueck, M. Schurter, and A. Wüest (2013), Interface structure and flux laws in a natural double-diffusive layering, *J. Geophysical Research - Oceans* **118**(11): 6092-6106, doi:10.1002/2013JC009166.
- Sommer, T., J.R. Carpenter, M. Schmid, R.G. Lueck, and A. Wüest (2013). Revisiting microstructure sensor responses with implications for double-diffusive fluxes. *Journal of Atmospheric and Oceanic Technology* **30**(8): 1907–1923, doi: 10.1175/JTECH-D-12-00272.1

2012

- Bonalumi, M., F.S. Anselmetti, A. Wüest, and M. Schmid (2012). Modeling of temperature and turbidity in a natural lake and a reservoir connected by pumped-storage operations. *Water Resources Research* **48**: W08508, doi:10.1029/2012WR011844.
- Carpenter, J.R., T. Sommer and A. Wüest (2012a). Simulations of a double-diffusive interface in the diffusive convection regime, *Journal Fluid Mechanics*, **711**: 411-436, doi: 10.1017/jfm.2012.399.
- Carpenter, J.R., T. Sommer and A. Wüest (2012b). Stability of a double-diffusive interface in the diffusive convection regime. *Journal of Physical Oceanography* **42**(5): 840 – 854, doi: 10.1175/JPO-D-11-0118.1.
- Jordanoska, B., T. Stafilov, A. Wüest, (2012). Assessment on physico-chemical composition of surface karst springs feeding Lake Ohrid, *Macedonian Journal of Ecology and Environment*, **14**(1-2): 19-25, doi: 556.114(497.771:285.2)
- Müller, B., L.D. Bryant, A. Matzinger, and A. Wüest (2012). Hypolimnetic oxygen depletion in eutrophic lakes. *Environ. Sci. Technol.* **46** (18): 9964–9971, doi: 10.1021/es301422r.
- Odermatt, D., F. Pomati, J. Pitarch, J. Carpenter, M. Kawka, M. Schaepman and A. Wüest (2012). MERIS observations of phytoplankton blooms in a stratified eutrophic lake. *Remote Sensing of Environment* **126**: 232-239.
- Schmid, M., K. Ross, and A. Wüest (2012). Comment on “An additional challenge of Lake Kivu in Central Africa – upward movement of the chemoclines by Finn Hirslund”. *Journal of Limnology* **71**(2): 330-334, doi: 10.4081/jlimnol.2012.e35.

2011

- Bonalumi, M., F. S. Anselmetti, R. Kaegi, and A. Wüest (2011). Particle dynamics in high-Alpine proglacial reservoirs modified by pumped-storage operation, *Water Resources Research* **47**: W09523, doi:10.1029/2010WR010262.
- DelSontro T, M.J. Kunz, T. Kempter, A. Wüest, B. Wehrli, and D.B. Senn (2011). Spatial heterogeneity of methane ebullition in a large tropical reservoir. *Environmental Science & Technology* **45**: 9866 – 9873, doi: 10.1021/es2005545.
- Kunz, M. J., A. Wüest, B. Wehrli, J. Landert, and D. B. Senn (2011). Impact of a large tropical reservoir on riverine transport of sediment, carbon and nutrients to downstream wetlands, *Water Resources Research* **47**: W12531, doi:10.1029/2011WR010996.
- Kunz, M.J., F.S. Anselmetti, A. Wüest, B. Wehrli, A. Vollenweider, S. Thüning, and D.B. Senn (2011). Sediment accumulation and carbon, nitrogen, and phosphorus deposition in the large tropical reservoir Lake Kariba (Zambia/Zimbabwe), *Journal Geophysical Research* **116**(G3): G03003, doi:10.1029/2010JG001538.
- Lorrai, C., L. Umlauf, J.K. Becherer, A. Lorke and A. Wüest (2011). Boundary mixing in lakes: 2. Combined effects of shear- and convectively induced turbulence on basin-scale mixing. *Journal Geophysical Research* **116**: C10018, doi: 10.1029/ 2011JC 007121.
- Pasche, N., M. Schmid, F. Vazquez, C. J. Schubert, A. Wüest, J. D. Kessler, M. A. Pack, W. S. Reeburgh, and H. Bürgmann (2011). Methane sources and sinks in Lake Kivu, *Journal Geophysical Research* **116**(G3): G03006, doi: 10.1029/2011JG001690.

2010

- Jordanoska, B., M.J. Kunz, T. Stafilov, and A. Wüest (2010). Temporal variability of physico-chemical properties of St. Naum karst springs feeding Lake Ohrid. *Journal of Environmental Protection and Ecology*. *Ekol. Zašt. Život. Sred.* **13**(1-2): 3-11.

- Bryant, L.D, D.F. McGinnis, C. Lorrai, A. Brand, J.C. Little, and A. Wüest (2010). Evaluating oxygen fluxes using microprofiles from both sides of the sediment-water interface. *Limnology and Oceanography-Methods* **8**: 610-627.
- Bryant, L.D., C. Lorrai, D.F. McGinnis, A. Brand, A. Wüest, and J.C. Little (2010). Variable sediment oxygen uptake in response to dynamic forcing. *Limnology and Oceanography* **55**(2): 950–964.
- Lorrai, C., D. F McGinnis, P. Berg, A. Brand, and A. Wüest (2010). Application of oxygen eddy correlation in aquatic systems. *Journal of Atmospheric and Oceanic Technology* **27**(9): 1533–1546.
- Matter M, F.S. Anselmetti, B. Jordanoska, B. Wagner, M. Wessels and A. Wüest (2010). Carbonate sedimentation and effects of eutrophication observed at the Kališta subaquatic springs in Lake Ohrid (Macedonia), *Biogeosciences* **7**(11): 3755–3767.
- Matzinger, A., B. Müller, P. Niederhauser, M. Schmid, and A. Wüest (2010). Hypolimnetic oxygen consumption by sediment-based reduced substances in former eutrophic lakes. *Limnology and Oceanography* **55**(5): 2073–2084.
- Schmid M., M. Busbridge, and A. Wüest (2010). Double-diffusive convection in Lake Kivu. *Limnology and Oceanography* **55**(1): 225–238.

2009

- Tockner, K., A. Wüest, S. Findlay (2009). Aquatic Sciences celebrates its 20th anniversary. *Aquatic Sciences* **71**(1): 1-2.
- Hondzo, M. and A. Wüest (2009). Do microscopic organisms feel turbulent flows? *Environmental Science & Technology* **43**(3): 764–768.
- Pasche, N., C. Dinkel, B. Müller, M. Schmid, A. Wüest and B. Wehrli (2009). Physical and biogeochemical limits to internal nutrient loading of meromictic Lake Kivu. *Limnology and Oceanography* **54**(6): 1863–1873.
- Muvundja, F.A., N. Pasche, F.W.B. Bugenyi, M. Isumbisho, B. Müller, J.N. Namugize, P. Rinta, M. Schmid, R. Stierli, and A. Wüest (2009). Balancing nutrient inputs to Lake Kivu. *Journal of Great Lakes Research* **35**(3): 406–418.

2008

- Brand A., D.F. McGinnis, Wehrli B., and A. Wüest (2008). Intermittent oxygen flux from the interior into the bottom boundary of lakes as observed by eddy correlation. *Limnology and Oceanography* **53**(5): 1997-2006.
- McGinnis, D. F., P. Berg, A. Brand, C. Lorrai, T. J. Edmonds, and A. Wüest (2008). Measurements of eddy correlation oxygen fluxes in shallow freshwaters: Towards routine applications and analysis, *Geophysical Research Letters* **35**, L04403, doi:10.1029/2007GL032747.
- Schmid, M., N. M. Budnev, N. G. Granin, M. Sturm, M. Schurter, and A. Wüest (2008). Lake Baikal deepwater renewal mystery solved, *Geophysical Research Letters* **35**: L09605, doi:10.1029/2008GL033223.

2007

- Matzinger, A., R. Pieters, K. I. Ashley, G. A. Lawrence, and A. Wüest (2007). Effects of impoundment on nutrient availability and productivity in lakes. *Limnology and Oceanography* **52**: 2629 - 2640.

- Finger D., M. Schmid and A. Wüest (2007). Comparing effects of oligotrophication and upstream hydropower dams on plankton and productivity in perialpine lakes. *Water Resources Research* **43**(12): W12404, doi: 10.1029/2007WR005868.
- Finger D., P. Bossard, M. Schmid, L. Jaun, B. Müller, D. Steiner, E. Schäffer, M. Zeh, and A. Wüest (2007). Effects of alpine hydropower operations on primary production in a downstream lake. *Aquatic Sciences* **69**(2): 240-256. doi: 10.1007/s00027-007-0873-6
- Jaun L., D. Finger, M. Zeh, M. Schurter, and A. Wüest (2007). Effects of upstream hydro-power operation and oligotrophication on the light regime of a turbid peri-alpine lake. *Aquatic Sciences* **69**(2): 212-226. doi: 10.1007/s00027-007-0876-3
- Matzinger A., Schmid M., Veljanoska-Sarafiloska E., Patceva S., Guseska D., Wagner B., Müller B., Sturm M., and A. Wüest (2007). Eutrophication of ancient Lake Ohrid: Global warming amplifies detrimental effects of increased nutrient inputs. *Limnology and Oceanography* **52**(1): 338-353.
- Müller, B., D. Finger, M. Sturm, V. Prashun, T. Haltmeier, P. Bossard, C. Hoyle, and A. Wüest (2007). Present and past bio-available phosphorus budget in the ultra-oligotrophic Lake Brienz. *Aquatic Sciences* **69**: 227-239.
- Schmid M., De Batist M., Granin N.G., Kapitanov V.A., McGinnis D.F., Mizandrontsev I.B., Obzhairov A.I., and A. Wüest (2007). Sources and sinks of methane in Lake Baikal: A synthesis of measurements and modeling. *Limnology and Oceanography* **52**(5): 1824–1837.
- Wüest A., Zeh M., and J.D. Ackerman (2007). Lake Brienz Project: An interdisciplinary catchment-to-lake study. *Aquatic Sciences* **69**: 173-178.
- Brand A., Müller B., Wüest A., Dinkel C., Revsbech N.P., Nielsen L.P., Pedersen O., Damgaard L. R., Larsen L. H., and B. Wehrli (2007). Microsensor for in situ flow measurements in benthic boundary layers at submillimeter resolution with extremely slow flow. *Limnology and Oceanography: Methods* **5**: 185–191.

2006

- Müller, B., R. Stierli, and A. Wüest (2006). Phosphate adsorption by mineral weathering particles in oligotrophic waters of high particle content. *Water Resources Research* **42**(10): W10414, doi:10.1029/2005WR004778.
- Teodoru, C., D. F. McGinnis, A. Wüest, and B. Wehrli (2006). Nutrient Retention in the Danube's Iron Gate Reservoir. *EOS Transactions* **87**(38): 385-387.
- Finger, D., M. Schmid, and A. Wüest (2006). Effects of upstream hydropower operation on riverine particle transport and turbidity in downstream lakes. *Water Resources Research* **42**(8): W08429, doi: 10.1029/2005WR004751.
- Matzinger, A., M. Jordanoski, E. Veljanoska-Sarafiloska, M. Sturm, B. Müller and A. Wüest (2006). Is Lake Prespa jeopardizing the ecosystem of ancient Lake Ohrid? *Hydrobiologia* **553**: 89-109.
- Moosmann L., R. Gächter, B. Müller, and A. Wüest (2006). Is phosphorus retention in autochthonous lake sediments controlled by oxygen or phosphorus? *Limnology and Oceanography* **51**(1, part 2): 763–771.
- Matzinger, A., Z. Spirkovski, S. Patceva, and A. Wüest (2006). Sensitivity of Ancient Lake Ohrid to Local Anthropogenic Impacts and Global Warming. *Journal of Great Lakes Research* **32**: 158-179.

McGinnis, D. F., J. Greinert, Y. Artemov, Y., S. E. Beaubien, and A. Wüest (2006). The fate of rising methane bubbles in stratified waters: How much methane reaches the atmosphere? *Journal of Geophysical Research* **111**(C9): C09007, doi:10.1029/2005JC003183.

Schmid, M., M. Halbwachs and A. Wüest (2006). Simulation of CO₂ concentrations, temperature, and stratification in Lake Nyos for different degassing scenarios. *Geochemistry, Geophysics, Geosystems* **7**, Q06019, doi:10.1029/2005GC001164.

McGinnis, D., S. Bocaniov, C. Teodoru, G. Friedl, A. Lorke, and A. Wüest (2006). Silica retention in the Iron Gate I reservoir on the Danube River: The role of side bays as nutrient sinks. *River Research and Applications* **22**: 441-456.

2005

Schmid, M., M. Halbwachs, B. Wehrli, and A. Wüest (2005). Weak mixing in Lake Kivu: New insights indicate increasing risk of uncontrolled gas eruption. *Geochemistry, Geophysics, Geosystems* **6**: Q07009, doi:10.1029/2004GC000892.

Lorke, A., F. Peeters and A. Wüest (2005). Shear-induced convective mixing in bottom boundary layers on slopes. *Limnology and Oceanography* **50**(5): 1612-1619

Moosmann L., B. Müller, R. Gächter, A. Wüest, E. Butscher and P. Herzog (2005). Trend-oriented sampling strategy and estimation of soluble reactive phosphorus loads in streams. *Water Resources Research* **41**(1): W01020, doi: 10.1029/2004WR003539.

Müller B., M. Maerki, M. Schmid, E. G. Vologina, B. Wehrli, A. Wüest and M. Sturm (2005). Internal carbon and nutrient cycling in Lake Baikal: sedimentation, upwelling, and early diagenesis. *Global and Planetary Change* **46**: 101-124.

Stips A., H. Burchard, K. Bolding, H. Prandke, A. Simon and A. Wüest (2005). Measurement and simulation of viscous dissipation in the wave affected surface layer. *Deep Sea Research II* **52**: 1133-1155.

Wüest A., T. M. Ravens, N. G. Granin, O. Kocsis, M. Schurter and M. Sturm (2005). Cold intrusions in Lake Baikal - direct observational evidence for deep water renewal. *Limnology and Oceanography* **50**(1): 184-196.

Lorke A., and A. Wüest (2005). Application of coherent ADCP for turbulence measurements in the bottom boundary layer. *Journal Atmospheric Oceanic Technology* **22**: 1821-1828.

2004

McGinnis, D. F., A. Lorke, A. Wüest, A. Stöckli, and J. C. Little (2004). Interaction between a bubble plume and the near field in a stratified lake. *Water Resources Research* **40**(10): W10206, doi:10.1029/2004WR003038.

Schmid M., K. Tietze, M. Halbwachs, A. Lorke, D.F. McGinnis, and A. Wüest (2004). How hazardous is the gas accumulation in Lake Kivu? Arguments for a risk assessment in light of the Nyiragongo Volcano eruption of 2002. *Acta Vulcanologica* **14/15** (2002-2003): 115-121.

Schmid M, A. Lorke, C. Dinkel, G. Tanyileke, and A. Wüest (2004). Double-diffusive convection in Lake Nyos, Cameroon. *Deep Sea Research I* **51**: 1097-1111.

Lorke A., K. Tietze, M. Halbwachs, and A. Wüest (2004). Response of Lake Kivu stratification to lava inflow and climate warming. *Limnology and Oceanography* **49**(3): 778-783.

Halbwachs, M., Sabroux, J.-C., Grangeon, J., Kayser, G., Tochon-Danguy, J.-C., Felix, A., Béard, J.-C., Villeveille, A., Vitter, G., Richon, P., Wüest, A., and J. Hell (2004).

Degassing the “Killer Lakes” Nyos and Monoun, Cameroon. *EOS Transactions* **85**(30): 281–288.

Lorke, A., D. F. McGinnis, P. Spaak, and A. Wüest (2004). Acoustic observations of zooplankton in lakes using a Doppler current profiler. *Freshwater Biology* **49**:1280-1292.

2003

Eugster, W., G. Kling, T. Jonas, J. P. McFadden, A. Wüest, S. MacIntyre, and F. S. Chapin III (2003). CO₂ exchange between air and water in an Arctic Alaskan and midlatitude Swiss lake: Importance of convective mixing. *Journal Geophysical Research* **108**(D12): 4362, doi:10.1029/2002JD002653.

Jonas, T., A. Wüest, W. Eugster, and A. Stips (2003). Observations of a quasi shear-free lacustrine convective boundary layer: stratification and its implications on turbulence. *Journal Geophysical Research* **108**(C10): 3328, doi:10.1029/2002JC001440.

Jonas, T., A. Y. Terzhevik, D. V. Mironov, and A. Wüest (2003). Radiatively driven convection in an ice-covered lake investigated by using temperature microstructure technique. *Journal Geophysical Research* **108**(C6): 3183, doi:10.1029/2002JC001316.

Lorke, A., Müller B., Märki, M. and Wüest A. (2003). Breathing sediments: The control of diffusive transport across the sediment-water interface by periodic boundary-layer turbulence. *Limnology and Oceanography* **48**(6): 2077-2085.

Meier W., C. Bonjour, A. Wüest and P. Reichert (2003). Modelling the effect of water diversion on the temperature of mountain streams; *Journal of Environmental Engineering* **129**(8): 755-764.

Schmid, M., A. Lorke, A. Wüest, M. Halbwachs and G. Tanyileke (2003). Development and sensitivity analysis of a model for assessing stratification and safety of Lake Nyos during artificial degassing. *Ocean Dynamics* **53**: 288-301, doi: 10.1007/s10236-003-0032-0.

Truffer B., Bratrich C., Markard J., Peter A., Wüest A. and Wehrli B. (2003). Green Hydropower: The contribution of aquatic science research to the promotion of sustainable electricity. *Aquatic Sciences*. **65**: 99-110.

Wüest A. and A. Lorke (2003). Small-scale hydrodynamics in lakes. *Annual Review Fluid Mechanics* **35**: 373-412.

2002

Friedl, G., and A. Wüest (2002). Disrupting biogeochemical cycles - consequences of damming *Aquatic Sciences* **64**: 55-65.

Lorke A., L. Umlauf, T. Jonas and A Wüest (2002). Dynamics of turbulence in low-speed oscillating bottom-boundary layers of stratified basins. *Environmental Fluid Mechanics* **2**: 291–313.

Goudsmit, G.H., H. Burchard, F. Peeters and A. Wüest (2002). Application of k-ε turbulence models to enclosed basins: The role of internal seiches *Journal Geophysical Research* **107**(C12): 3230. doi: 10.1029/2001JC000954.

Lorke, A. and A. Wüest (2002). Probability density of displacement and overturning length scales under diverse stratification. *Journal Geophysical Research* **107**(C12): 3214. doi: 10.1029/2001JC001154.

2000

- Ravens, T.M., O. Kocsis, A. Wüest and N. Granin (2000). Small-scale turbulence and vertical mixing in Lake Baikal. *Limnology and Oceanography* **45**: 159-173.
- Sander, J., A. Simon, T. Jonas and A. Wüest (2000). Surface turbulence in natural waters: A comparison of large eddy simulations with microstructure observations *Journal Geophysical Research* **105**(C1): 1195-1207.
- Gloor, M., A. Wüest, and D. M. Imboden (2000). Dynamics of mixed bottom boundary layers and its implications for diapycnal transport in a stratified, natural water basin. *Journal Geophysical Research* **105**: 8629-8646.
- Wüest A., G. Piepke, and D.C. Van Senden (2000). Turbulent kinetic energy balance as a tool for estimating vertical diffusivity in wind-forced stratified waters. *Limnology and Oceanography* **45**: 1388-1400.
- Wüest A. and E.C. Carmack (2000). A priori estimates of mixing and circulation in the hard-to-reach water body of Lake Vostok; *Ocean Modelling* **2**: 29-43.
- Gruber, N., B. Wehrli and A. Wüest (2000). The role of biogeochemical cycling for the formation and preservation of varved sediments in Soppensee. *Journal of Paleolimnology* **24**: 277-291.
- 1999**
- Kocsis, O., H. Prandke, A. Stips, A. Simon and A. Wüest (1999). Comparison of dissipation of turbulent kinetic energy determined from shear and temperature microstructure. *Journal Marine Systems* **21**: 67-84.
- Ramisch F., M. Dittrich, C. Mattenberger, B. Wehrli, and A. Wüest (1999). Calcite dissolution in two deep eutrophic lakes. *Geochimica Cosmochimica Acta* **63**: 3349-3356.
- 1998**
- Kocsis, O., B. Mathis, M. Gloor, M. Schurter and A. Wüest (1998). Enhanced mixing in narrows: A case study at the Mainau Sill, Lake Constance. *Aquatic Sciences* **60**: 236-252.
- Wüest, A. and M. Gloor (1998). Bottom Boundary Mixing: The Role of Near-sediment Density Stratification. In J. Imberger (ed) *Physical Processes in Lakes and Oceans. Coastal and Estuarine Studies* **54**: 485-502.
- 1997**
- Schlatter, J. W., A. Wüest and D.M. Imboden (1997). Hypolimnetic density currents traced by sulphur hexafluoride (SF₆). *Aquatic Sciences* **59**(3): 225 - 242.
doi:10.1007/s000270050010.
- Goudsmit, G.H., F. Peeters, M. Gloor and A. Wüest (1997). Boundary versus internal diapycnal mixing in stratified natural waters. *Journal Geophysical Research* **102**: 27'903-27'914.
- Müller S. R., B. Wehrli, A. Wüest, H. Xue and L. Sigg (1997). The fate of trace pollutants in natural waters - lakes as "real-world test tubes" *Chimia* **51**: 935-940.
- 1996**
- Peeters, F., A. Wüest, G. Piepke and D.M. Imboden (1996). Horizontal mixing in lakes. *Journal Geophysical Research* **101**: 18361-75.
- Wüest, A., D.C. van Senden, J. Imberger, G. Piepke and M. Gloor (1996). Comparison of diapycnal diffusivity measured by tracer and microstructure techniques. *Dyn Atmosph Oceans* **24**: 27-39.

1994

- Gloor, M., A. Wüest and M. Münnich (1994). Benthic boundary mixing and resuspension induced by internal seiches. *Hydrobiologia* **284**: 59 – 68.
- Wüest, A. (1994). Interaktionen in Seen: Die Biologie als Quelle dominanter physikalischer Kräfte. *Limnologica - Ecology and Management of Inland Waters* **24**: 93 – 104.
- Dimai, A., M. Gloor und A. Wüest (1994). Bestimmung der Intensität von Turbulenz in der Bodengrenzschicht von Seen. *Limnologica - Ecology and Management of Inland Waters* **24**: 339-350.

1993 and earlier

- Johnson, T. C., K. Kelts, J. T. Lehman, and A. Wüest (1993). IDEAL Symposium on the East African lakes. *EOS Transactions* **74**(22): 250.
- Peeters, F., A. Wüest and D.M. Imboden (1993). Comparison of the results of tracer experiments in lakes with predictions based on horizontal mixing models. *Verh. Internat. Verein. Limnol.* **25**: 67-73.
- Wüest, A., N.H. Brooks and D.M. Imboden (1992). Bubble plume modeling for lake restoration. *Water Resources Research* **28**: 3235-3250.
- Münnich, M., A. Wüest and D.M. Imboden (1992). Observations of the second vertical mode of the internal seiche in an alpine lake. *Limnology and Oceanography* **37**: 1705-1719.
- Wüest, A., W. Aeschbach-Hertig, H. Baur, M. Hofer, R. Kipfer and M. Schurter (1992). Density structure and tritium-helium age of deep hypolimnetic water in the northern basin of Lake Lugano. *Aquatic Sciences* **54**: 205 – 218.
- Imboden, D.M., B. Stotz and A. Wüest (1988). Hypolimnetic mixing in a deep alpine lake and the role of a storm event. *Verh. Internat. Verein. Limnol.* **23**: 67-73.
- Wüest, A., D.M. Imboden and M. Schurter (1988). Origin and size of hypolimnetic mixing in Urnersee, the southern basin of Vierwaldstättersee (Lake Lucerne). *Schweiz. Z. Hydrol.* **50**: 40-70.
- Patterson, B. D., A. Frischknecht, U. Straumann, P. Truöl, A. Wüest, T. Wichert (1984). Planar blocking of Mu decomposition positrons in silicon. *Helvetica Physica Acta* **55**: 130.
- Patterson, B. D., A. Bosshard, U. Straumann, P. Truöl, Th. Wichert and A. Wüest (1984). Muon decay channeling in silicon. *Hyperfine Interactions* **19**: 965-970.
- Patterson, B. D., A. Bosshard, P. Truöl, U. Straumann, A. Wüest, T. Wichert (1984). Muon decay blocking in silicon. *Helvetica Physica Acta* **57**: 217.
- Patterson, B. D., A. Bosshard, U. Straumann, P. Truöl and A. Wüest and T. Wichert (1984). Positron blocking from muon decay in silicon. *Physical Review Letters* **52**: 938-941.

b) Book chapters

- Kunz M.J. and A. Wüest (2014). Impacts by dams: From water quality modelling to management optimization. In: Schleiss et al. (Eds), *Proceedings of the International Conference on Fluvial Hydraulics, RIVER FLOW 2014*, p. 2357- 2362. Taylor & Francis Group, London, ISBN 978-1-138-02674-2. doi: 10.13140/2.1.1329.0886
- Brookes, J.D., M. Schmid, D. Skinner, and A. Wüest (2013), In search of strategies to mitigate the impacts of global warming on aquatic ecosystems, p 429 - 448, chapter 24

- in C.R. Goldman, M. Kumagai, R.D. Robarts (eds) *Climatic Change and Global Warming of Inland Waters: Impacts and Mitigation for Ecosystems and Societies*, 2013 John Wiley & Sons, Ltd, Chichester, doi: 10.1002/ 9781118470596.ch24
- Wüest, A. and M. Schmid (2012). Physical Limnology, page 153-168, chapter 13. In: J. Fernando (ed), *Handbook of Environmental Fluid Dynamics. Volume 1 Overview and Fundamentals / K10858*, Oxford: Taylor&Francis Group.
- Wüest, A., T. Sommer, M. Schmid, and J.R. Carpenter (2012). Diffusive-type of double diffusion in lakes – a review, p 271-284. Chapter 14 in W Rodi and M Uhlmann (eds), *Environmental Fluid Mechanics: Memorial Volume in Honour of Prof. Gerhard H. Jirka*, IAHR Monographs, CRC Press / Taylor&Francis Group, Karlsruhe.
- Schmid, M. and A. Wüest (2012). Stratification, Mixing and Transport Processes in Lake Kivu, pages 13 - 29. Chapter 2 in J.-P. Descy et al. (eds.), *Lake Kivu: Limnology and biogeochemistry of a tropical great lake*, Aquatic Ecology Series 5, doi: 10.1007/978-94-007-4243-7_2, © Springer Science+Business Media B.V. 2012.
- Pasche, N., F. A. Muvundja, M. Schmid, A. Wüest, and B. Müller (2012). Nutrient cycling in Lake Kivu, p 31 - 45. Chapter 3 in J.-P. Descy et al. (eds.), *Lake Kivu: Limnology and biogeochemistry of a tropical great lake*, Aquatic Ecology Series 5, doi: 10.1007/978-94-007-4243-7_3, © Springer Science+Business Media B.V. 2012.
- Wüest A., L. Jarc, H. Bürgmann, N. Pasche and M. Schmid (2012). Methane formation and future extraction in Lake Kivu, p 165 - 180. Chapter 10 in J.-P. Descy et al. (eds.), *Lake Kivu: Limnology and biogeochemistry of a tropical great lake*, Aquatic Ecology Series 5, doi: 10.1007/978-94-007-4243-7_10, © Springer Science+Business Media B.V. 2012.
- Wüest A. (2010). Downstream relevance of reservoir management. In: U. Bundi (ed), *Alpine Waters. Hdb Env Chem* **6**: 235–246, Springer-Verlag Berlin, Heidelberg.
- Wüest A. and A. Lorke (2009). Small-scale turbulence and mixing: energy fluxes in stratified lakes. In: G. E. Likens (ed), *Encyclopedia of Inland Waters. Volume 1*, 628 -635, Oxford: Elsevier.
- Wüest, A. (2007). Gewässer als Ökosysteme - physikalische Prozesse. In: P. Stadelmann (ed), *Vierwaldstättersee - Lebensraum für Pflanzen, Tiere und Menschen*. Brunner Verlag Kriens.
- Wüest, A., and A. Lorke (2005). Validation of microstructure-based diffusivity estimates using tracers in lakes and oceans. In: H. Baumert, H.J. Simpson, and J. Sündermann (eds): *Marine Turbulence – Theories, Observations and Models*. 139 – 152, Springer.
- Lorke, A., and A. Wüest (2005). Turbulence and mixing regimes specific to lakes. In: H. Baumert, H.J. Simpson, and J. Sündermann (eds): *Marine Turbulence – Theories, Observations and Models*. 346 – 354, Springer.
- McGinnis D. F., and A. Wüest (2005). Lake hydrodynamics. In: McGraw-Hill Yearbook of Science & Technology. McGraw-Hill.
- Lorke, A., M. Schmid, B. Müller, M. 200 and A. Wüest (2004). Hydrodynamic control of sediment-water fluxes. In: G.H. Jirka & W.S.J Uijtewaal (Editors), *Shallow Flows*. 497-501, A.A. Balkema Publishers, Leiden.
- Wüest, A., and D. M. Farmer (2003). Seiche. In: *McGraw-Hill Encyclopædia of Science and Technology*. 9th edition, Volume **16**, The McGraw-Hill Companies, 4 p.
- Wüest, A., and A. Lorke (2003). The effect of the bottom boundary on diapycnal mixing in enclosed basins, 13th 'Aha Huliko'a Hawaiian Winter Workshop on "Near Boundary Processes and their Parameterization", p 9-15. University of Hawaii, Manoa.

- Matzner R. (Editor) (2001). CRC Dictionary of Geophysics, Astrophysics, and Astronomy; CRC-Press, New York, 526 p (contribution A. Wüest ~20 p).
- Wüest, A. N. Granin, O. Kocsis, T. M. Ravens, M. Schurter and M. Sturm (2000). Deep water renewal in Lake Baikal' South Basin - low replacement and high turbulence. International Conference on Stratified Flow, Vancouver, 425-430.
- Jonas T. and A. Wüest (2000). Convective turbulence – Using temperature microstructure technique combined with acoustic Doppler velocimetry to investigate low turbulence. International Conference on Stratified Flow, Vancouver, 337 – 342.
- Ravens T.M., O. Kocsis, A. Wüest, M. Sturm and N. Granin (2000). Direct evidence of deep water renewal in the South Basin of Lake Baikal. International Conference on Stratified Flow, Vancouver, 337 – 342.
- Wüest, A., N. Granin, O. Kocsis, T. M. Ravens, M. Schurter and M. Sturm (2000). Deep water renewal in Lake Baikal – matching turbulent kinetic energy and internal cycling. Terra Nostra 2000/9: 60-74 Alfred-Wegener-Stiftung, Berlin; ISSN 0946-8978.
- Goudsmit, G.H. and A. Wüest (1999). Interior and basin-wide diapycnal mixing in stratified water: A comparison of dissipation and diffusivity; in: P.A. Davis (ed) Mixing and Dispersion in Stably Stratified Flows. 145-163, Clarendon Press, Oxford, 1999.
- Wüest, A., G. Piepke and J. D. Halfman (1996). Combined effects of dissolved solids and temperature on the density stratification of Lake Malawi (East Africa). In Johnson and Odada (eds). The Limnology, Climatology and Paleoclimatology of the East African Lakes. 183-202, *Gordon and Breach Scientific Publishers, New York*.
- Goudsmit, G., P. Reichert and A. Wüest (1996). Modelling of physical and biogeochemical properties in lakes using AQUASIM. In: Müller A. [ed], "Hydroinformatics '96", Balkema, Rotterdam, 779-786.
- Imboden, D. M. and A. Wüest (1995). Mixing Mechanisms in Lakes, In: A. Lerman, D. Imboden and J. Gat (eds), *Physics and Chemistry of Lakes*. 83-138, Springer, New York.
- Wüest, A. and B. Wehrli (1994). Mixing and water quality in lakes. In: H. Sund et al. (eds), Environmental Protection and Lake Ecosystem, 109 –128, *China Science and Technology Press*.
- Wüest, A. and D.M. Imboden (1987). River versus wind induced hypolimnic mixing in a deep alpine Lake. *International Association for Hydraulic Research C1*: 99-104.
- Müller, A., E. Grass, A. Wüest and A. Gyr (1987). Modelling of bubble plumes. *International Association for Hydraulic Research B*: 348-353.

c) Expert and consulting reports

- Wüest A. und A. Gaudard (2015). Schwankungen der Temperaturen und Sauerstoffgehalte bei der Seewasserefassung zur Kühlung des CSCS, Lugano. Bericht an AquaPlus, Zug, März 2015, Eawag Kastanienbaum und EPFL Lausanne, 19 p.
- Wüest A. und G. Fink (2014). Potential zur Wärme- und Kühlenergienutzung aus dem Vierwaldstättersee – Machbarkeit. Aufsichtskommission Vierwaldstättersee (AKV), und Umwelt und Energie (Uwe), Kanton Luzern, Dezember 2014, Eawag Kastanienbaum, 29 p.

- Wüest A, G. Fink und H. Ehmann (2014). Empfehlungen für eine nachhaltige Wärmenutzung am Bodensee. Richtlinien. KlimBo Teilprojekt 4.h, 4p und Anhänge, Landesanstalt für Umwelt, Messungen und Naturschutz. November 2014.
- Gaudard A., D. Bouffard and A. Wüest (2014). Alternatives for the development of the EPFL water intake in Lake Geneva. Report APHYS-14-1 pour EPFL
- Fink G., M. Wessels und A. Wüest (2014). Einfluss auf den Bodensee durch klimatische und hydrologische Entwicklungen im Einzugsgebiet. Partikeltransport in den Bodensee. KlimBo Teilprojekt 1a, 1b und 1d. Landesanstalt für Umwelt, Messungen und Naturschutz. 18 August 2014.
- Wüest A, G. Fink und U. Lang (2014). Anwendung eines dreidimensionalen Modells und Verifikation des Wärmehaushaltsmodells für Auswirkungen von Wärmenutzungen. KlimBo Teilprojekt 4.f, 16p, Landesanstalt für Umwelt, Messungen und Naturschutz.. Mai 2014
- Bouffard D. et A. Wüest (2013). Analyse des fluctuations de température dans la station de pompage de l'EPFL. Report APHYS-13-1 pour EPFL
- Fink G. und A. Wüest (2013). Wärmehaushaltsmodell Bodensee. Modelluntersuchung zum Wärmehaushalt und zu Auswirkungen von Wärmenutzungen im Bodensee. Teilbericht im KlimBo Teilprojekt 2c, 2d, 2e, 2g. Landesanstalt für Umwelt, Messungen und Naturschutz. August 2013
- Wüest A. (2012). Potential zur Wärmeenergienutzung aus dem Zürichsee – Machbarkeit. Bericht an AWEL Zürich und Energiebeauftragter Stadt Zürich, Dezember 2012, Eawag Kastanienbaum, 16 p.
- Fink G. und A. Wüest (2012). Klimatische Veränderungen im Einzugsgebiet des Bodensees. Überprüfung der regionalen Klimamodelle auf Veränderung der Temperatur und Niederschlagsereignisse. KlimBo Teilprojekt 1c. Landesanstalt für Umwelt, Messungen und Naturschutz. Mai 2012
- Wüest A., G. Fink und S. Hunziker (2012). Wärmenutzungen am Bielersee und St. Moritzersee. Exemplarische Betrachtungen zu aktuellen Wärmenutzungen am Bielersee und St. Moritzersee. KlimBo Teilprojekt 2b. Landesanstalt für Umwelt, Messungen und Naturschutz (LUBW). Mai 2012
- Zimmermann U., T. Wagner, K. Cao, R. von Schulthess, M. Brögli, R. Gächter, and A. Wüest (2012). Lake Dianchi Kunming, Project Clear Lake. Summary Phases 1 to 3. Schlussbericht und Zusammenfassung. Report Government Province Kunming, 86 p.
- Müller B., L. Och und A. Wüest (2012). Entwicklung des Phosphorhaushalts und der Sauerstoffzehrung im Sempacher- und Baldeggersee. Bericht an Uwe Kt. Luzern, Eawag Kastanienbaum, 46 p.
- Wüest A. (2011). Sihlentlastung in den Zürichsee. Kommentare zur Machbarkeitsstudie, Eawag Kastanienbaum, 12 p.
- Hunziker S. und A. Wüest (2011). Anthropogene Temperaturveränderungen in Flüssen und Seen – eine Literaturanalyse. Literaturstudie zu Auswirkungen, Risikopotenzial und Toleranzbereichen von Wärmenutzungen. KlimBo Teilprojekt 2a. Landesanstalt für Umwelt, Messungen und Naturschutz (LUBW). Dezember 2011
- Wüest, A., und B. Müller (2010). Abnahme des Phosphorgehalts im Zugersee - Stand 2010. Bericht für AfU Kt. Zug, Eawag Kastanienbaum, 28 p.
- Wüest, A. (2010). Belüftung Greifensee im Sommer 2009. Bericht an AWEL, Eawag Kastanienbaum, 25 p.

- Wüest A., L. Jarc, and M Schmid. (2009). Modelling the reinjection of deep-water after methane extraction in Lake Kivu. Report for the Governments of Republic of Rwanda and Democratic Republic of the Congo. Report by Eawag and BTC, Eawag Kastanienbaum, Switzerland, 141 p,
http://www.fischer.eawag.ch/organisation/abteilungen/surf/kivu/methane_harvesting/index_EN
- MP 2009. Expert working group on Lake Kivu gas extraction (K. Tietze, F. Hirsland, P. Morkel, J. Boyle, A. Wüest and M. Schmid). Management prescriptions for the development of Lake Kivu gas resources. Report to Ministry of Infrastructure Republic of Rwanda and Ministry of Hydrocarbons Democratic Republic of the Congo.
http://www.eia.nl/Lake_Kivu/2009/Result%2002%20Kivu%20Management%20Prescriptions.pdf
- Rovelli, L., Wüest, A., Kohler, H. P. E. (2009). Untersuchungen von Explosiv-stoffen im Thuner-, Briener- und Vierwaldstättersee. Bericht an VBS und weitere, Eawag Kastanienbaum, 30 p.
- Schmid, M., L. Rovelli, A. Wüest, und H.P.E. Kohler. (2009). Massenbilanzen und toxikologisches Gefährdungspotenzial von ausgewählten Explosivstoffen im Thuner-, Briener- und Vierwaldstättersee. Bericht an VBS, Eawag Kastanienbaum, 35 p.
- Schmid, M.; D.F. McGinnis, und A. Wüest. (2008). Simulation der Auswirkungen eines allfälligen Pumpspeicherbetriebs auf Schichtung und Trübung im Lago di Poschiavo und im Lago Bianco. Bericht, Eawag Kastanienbaum, 47 p.
- Matzinger, A., B. Müller. M. Schmid, J. Little, R. Stierli, A. Zwysig, A. Wüest. (2008). Zirkulationsunterstützung im Türlensee und Pfäffikersee: Evaluation von Betrieb und Messprogramm. Bericht an Awel Zürich, Eawag, Kastanienbaum, 70 p.
- De Zeeuw, R. Post, A. Wüest, F. Darchambeau, J.B.M. Gashagaza. (2007). Advice on harvesting the methane resources and monitoring the stratification of Lake Kivu, Rwanda. Report by the Commission for Environmental Assessment (MER) to the Ministry of Infrastructure, Rwanda. ISBN 978-90-421-2182-9.
- Jaun, L., I. Ostrovsky, B. Müller, T. Diem, M. Reinhardt, und A. Wüest (2006). Massive Luft-übersättigung im Lungenersee vom Juni bis August 2006, Bericht im Auftrag des Elektrizitätswerkes Obwalden und AfU OW, Eawag Kastanienbaum, 20 p.
- Finger, D., L. Jaun und A. Wüest. (2006). Auswirkungen der Stauseen auf den Schwebstoffhaushalt und auf die Primärproduktion des Brienersees. Schlussbericht des Teilprojektes C (Veränderungen im Ökosystem Brienersee), Eawag Kastanienbaum, 45 p.
- Jordi, B., P. Bossard, M. Breitenstein, H.R. Bürgi, M. Filella, D. Finger, P. Huggenberger, A. Jakob, L. Jaun, A. Kirchhofer, B. Müller, R. Müller, C. Rellstab, P. Spaak, M. Sturm, M. Zeh, und A. Wüest (2006). Brienersee: Ein Ökosystem unter der Lupe - Resultate des Forschungsprojekts zum Rückgang des Planktons und der Felchenerträge. GBL, Bern.
- Teodoru C., A. Wüest, und B. Wehrli B (2006). Independent Review of the Environmental Impacts Assessment Report (EIAR) 2005 on the Future Ilisu Dam (Turkey). Report, Eawag Kastanienbaum, Switzerland.
- Jaun, L., J. Bloesch, und A. Wüest (2006). Sanierungsziele Lauerzersee. Bericht an AfU Kt. Schwyz, Eawag Kastanienbaum.
- Teodoru C, Wüest A, Wehrli B (2006) Independent Review of the Environmental Impact Assessment for the Merowe Dam Project (Nile River, Sudan). Report, Eawag Kastanienbaum, Switzerland.

- Jaun, L., D.F. McGinnis, und A. Wüest (2005). Tiefenwassereinleitung der ARA Morgental in den Bodensee – Dimensionierung der Abflussröhre für den Trockenwetteranfall, ARA Morgental. Bericht, Eawag Kastanienbaum.
- Moosmann L., Schmid M und A. Wüest (2005). Einfluss der Beschattung auf das Temperaturregime der Orbe; Bericht an Service des Forêts, de la Faune et de la Nature des Kantons Waadt (SFFN), Eawag Kastanienbaum.
- Moosmann, L., D. McGinnis, H.-R. Bürgi, R. Müller und A. Wüest (2004). Machbarkeitsstudie zur Erweiterung des Lebensraums für Felchen im Greifensee. Bericht an Amt für Abfall, Wasser, Energie und Luft (AWEL) Zürich. Eawag, 53 p.
- Moosmann, L. und A. Wüest (2004). Sanierung des Lauerzersees – Phosphoreintrag und Bilanz. Bericht an AfU des Kantons Schwyz, Eawag, 3 p.
- Wüest A., S. Hasler-Héritier, H.R. Bürgi, P. Huggenberger, A. Jakob, R. Müller und M. Zeh (2003). Veränderungen im Ökosystem Brienersee. Projektantrag im Auftrag GBL Kanton Bern. Expertenbericht Brienersee, Teil 1 und 2, 52 p.
- Moosmann, L., M. Sturm, B. Müller und A. Wüest (2003). Phosphorhaushalt des Greifensees: Belastung und seeinterne Umsätze. Zusammenhang zwischen Belastung und Seezustand. Bericht an AWEL Zürich, Eawag Kastanienbaum, 32 p.
- Moosmann, L. und A. Wüest (2003). Phosphorbilanz von Sempachersee und Baldeggersee: Eintrag durch Zuflüsse. Seeinterne Bilanz. Bericht an AfU Luzern. Eawag Kastanienbaum, 78 p.
- Frey, M., M. Schmid und A. Wüest (2003). Einfluss von Aufweitungen auf das Temperaturregime der Thur. Auftrag des AfU des Kantons Thurgau. Bericht, Eawag Kastanienbaum, 40 p.
- Moosmann, L. und A. Wüest (2002). Tunnelvarianten durch den Zürichsee – Auswirkungen auf Gewässerökologie und Trinkwasserversorgung. Amt für Abfall, Wasser, Energie und Luft (AWEL) des Kantons Zürich. Bericht, Eawag Kastanienbaum, 30 p.
- Moosmann, L., D. McGinnis und A. Wüest (2002). Erhöhte Sauerstoffzehrung im Sommer 2001 im Hallwilersee – Ursachen und Handlungsmöglichkeiten. Auftrag der Abteilung für Umwelt des Baudepartements des Kantons Aargau. Bericht, Eawag, 28 p.
- McGinnis und A. Wüest (2001). Tiefenwassereinleitung der gereinigten Abwässer der ARA Sarneraatal in den Alpnachersee - Dimensionierung der Einleitung; Bericht an Grüter AG und ARA Sarneraatal, Eawag Kastanienbaum.
- Wüest, A. und M. Schurter (2001). Trinkwasserfassung im Silsersee – Zusammenfassung der Untersuchungen von 2000/1, Bericht an Aquasystem Winterthur und Kt. GR, Eawag Kastanienbaum.
- Pieters, R., L.C. Thompson, L. Vidmanic, M. Roushorne, J. Stockner, K. Hall, M. Young, S. Pond, M. Derham, K. Ashley, B. Lindsay, G. Lawrence, D. Sebastian, G. Scholten, F. McLaughlin, A. Wüest, A. Matzinger and E. Carmack (1999). Arrow Reservoir limnology and trophic status, year 2 (1998/99). Report. RD 72, Fisheries Branch, Ministry of Environment, Lands and Parks, Province of British Columbia.
- Wüest, A., F. Ramisch und D. Hefti (1999). Unverschmutztes Aushub- und Ausbruchmaterial: Schüttung in Seen im Rahmen des GSchG. Mitteilungen zum Gewässerschutz, BUWAL 32: 28 p.
- Meier, W., P. Reichert, und A. Wüest (1997). Auswirkung des Kernkraftwerkes Mühleberg auf den Wärmehaushalt der Aare, Bericht 84218, Eawag, 72 p plus Appendix.

- Sturm, M., C. Siegenthaler, H.P. Suter und A. Wüest (1996). Das Verhalten von Schwebstoffen im Brienersee (Untersuchungsergebnisse der Jahre 1994-1995), Bericht. 84109, Eawag, 102 p.
- Wehrli, B. und A. Wüest (1996). Zehn Jahre Seenbelüftung: Analyse der Entwicklung und Optionen für die Zukunft, Bericht, Eawag, 138 p.
- Keller, P., M. Mengis, B. Wehrli und A. Wüest (1996). Sanierung des Sempachersees: Neuer Betriebsmodus der Seebelüftung, Bericht 84208, Eawag, 61 p.
- Wüest, A., D.M. Imboden und B. Wehrli (1994). Grundlagen für die Sanierung des Zugersees: Untersuchungen des Stoffhaushaltes von Tiefenwasser und Sediment, Bericht 37-4840, Eawag, 103 p.
- Wüest A. und D.M. Imboden (1992). Einleitungskonzept Zürichsee (Untersee): Zusammenfassung. Bericht, Eawag, 30 p.
- Heinz, G., D.M. Imboden und A. Wüest (1992). Einsee - Ein Computerprogramm zur Behandlung der Abwasser- und Kühlwasserrückgabe in Seen. Bericht, Eawag, 76 p.
- Wüest, A., B. Wehrli und G. Friedl (1991). Sanierung des Baldeggersees: Bericht über die Sauerstoff- und Phosphorentwicklung von 1982 - 1990 mit spezieller Analyse des Jahres 1990. Bericht, Eawag, 83 p.

d) Popular articles

- Wüest A., A. Bruder, A. Peter, und S. Vollenweider (2012). Potenzial und Grenzen der Wasserkraft. Eawag News 72/Juni 2012: 22 – 25.
http://www.eawag.ch/medien/publ/eanews/news_72/en72d_wueest.pdf
- Wüest A., A. Bruder, A. Peter, and S. Vollenweider (2012). Hydropower: potential for and limits to expansion. Eawag News 72/June 2012: 22 – 25.
- Sturm, M., von Salis, K., Rothenbühler, C., Wüest, A. (2008): Symposium Dieter Imboden. Exkursion St. Moritz - Stazersee - Pontresina - Alp Grüm. Symposium Dieter Imboden, St. Moritz, Switzerland, Juni 1, 2008, 22 pp.
- Matzinger A., und A. Wüest (2006). Europas letzter Ur-See in Gefahr - Schweizerisch-mazedonische Partnerschaft zur Erforschung des Ohridsees. NZZ, Oktober 2006.
- Wüest, A. und M. Zeh (2005). Dem Felchenfangrückgang im Brienersee auf der Spur, *natur + mensch* 2/2005.
- Wüest, A. und M. Zeh (2005). Dem Felchenfangrückgang im Brienersee auf der Spur, Bulletin SEV/AES 10/2005
- Bühler, J., C. Siegenthaler, R. Simitovic, A. Wüest und M. Zeh (2004). Trübeströme im Grimsensee. *Wasser, Energie, Luft* **5/6**, 129-135.
- Meier, W. und A. Wüest (2004). Wie verändert die hydroelektrische Nutzung die Wassertemperatur der Rhone? *Wasser, Energie, Luft* **11/12**, 305-309.
- Matzinger, A. and A. Wüest (2004). Internationale Zusammenarbeit zum Schutze des Ohridsees. *SEC INFO. Handelskammer Schweiz-Mitteuropa*. Dezember 2004.
- Wüest, A., L. Moosmann und G. Friedl (2003). Alpine Wasserkraftwerke und ihre "Fernwirkung" auf talwärts liegende Gewässer, *VSE Bulletin* **2/03**, Baden.
- Lorke, A., Wüest, A., Halbwachs, M. and Tietze, K. (2003). Gefahr aus dem Kivu See? *Eawag Annual Report 2002*, 54-55.

- Truffer, B., Bloesch, J. Bratrich, C., Gonser, T., Hoehn, E., Markard, J., Peter, A., Wehrli, B., Wüest, A. (2002). Ökostrom aus Wasserkraft - ein transdisziplinäres Forschungsprojekt. Schlussbericht (1997 - 2001). Eawag, *Ökostrom Publikationen*. Band 10, Kastanienbaum, 80 p. ISBN 3-905484-09-9.
- Wüest A. (2002). Book Review on: Marty Frank, Managing International Rivers. Problems, Politics, Institutions, Peter Lang Verlag, Bern, 409 p., 2001. *Schweizerische Zeitschrift für Politikwissenschaft* 8(1): 132-135.
- Küttel, S., A. Peter und A. Wüest (2002). Temperaturpräferenzen und –limiten von Fischarten Schweizerischer Fliessgewässer. *Rhone-Thur-Projekt Publikation* Nr. 1: 36 p.
- Wüest A. und L. Moosmann und G. Friedl (2002). Alpine Wasserkraftwerke und ihre Fernwirkung auf talwärts liegende Gewässer. *Eawag News* **55D**: 18-20.
- Moosmann, L., K. Jorde, M. Schneider, W. Meier, A. Peter und A. Wüest (2002). Restwasserbemessung für Ökostrom mit Beispiel Brenno (Bleniotal, TI). *Ökostrom Publikationen* Band 9. Eawag, Kastanienbaum. 120 Seiten. ISBN 3-905484-08-0.
- Wüest A., T. Jonas, A. Lorke und M. Schurter (2001). Mikrostrukturen der Temperatur als Tracer für Turbulenz und Mischung. *Eawag-News* **52D**: 16-17.
- Friedl, G. and A. Wüest (2000). Environmental impact of dams, submission to World Commission on Dams (WCD), <http://www.dams.org>.
- Wüest, A. (2000). Archaisches Leben im verborgenen Extrem? Anspruchsvolle Erkundung eines einzigartigen Ökosystems, *NZZ Forschung und Technik* **261**: 8. Nov. 2000.
- Wüest A. and B. Wehrli (1997). Ten years of artificial lake aeration, *Eawag-News* **42E**: 27-28.
- Wehrli, B, A. Wüest, H. Bühner, R. Gächter and J. Zobrist (1997). Decreasing eutrophication in Swiss lakes, *Eawag-News* **42E**: 12-14 (same article in German: *Eawag-News* 42D).
- Stadelmann, P., B. Wehrli, A. Wüest und W. Fluder (1997). Zehn Jahre Seenbelüftung: Erfahrungen und Optionen. *Vermessung, Photogrammetrie, Kulturtechnik* **95**: 116 – 120.
- Wehrli, B. und A. Wüest (1996). Zehn Jahre Seenbelüftung: Erfahrungen und Optionen. *Schriftenreihe der Eawag* **9**: 127 p (plus 28 p Anhang).
- Gloor, M., O. Kocsis, M. Omlin, M. Schurter und A. Wüest (1995). Temperaturmikrostrukturen: Eine Methode zur Bestimmung der Mischungsintensität in geschichteten Gewässern. *Gas, Wasser, Abwasser* **75**: 1087- 1096.
- Wehrli, B., A. Wüest und D.M. Imboden (1995). Sind biogen meromiktische Seen intern sanierbar? Fallbeispiel Zugersee. *Limnologie Aktuell* **8**: 29-37 *Gustav Fischer Verlag*.
- Scheidegger, A., A. Stöckli und A. Wüest (1994). Der Einfluss der internen Sanierungsmassnahmen auf den Sauerstoffhaushalt im Hallwilersee. *Wasser, Energie, Luft* **86**: 126 – 131.
- Ebinger C, Klerkx J, Delvaux D, Wüest A (1993). Evaluation of natural hazards in the northern part of the MALAWI RIFT (TANZANIA). *Mus. Roy. Afr. Centr., Tervuren (Belg.), Dept. Geol, Min., Rapp, Ann.* 1991-1992, 83-86.
- Peeters, F. und A. Wüest (1992). Mess-System zur Erfassung dreidimensionaler Tracer-Verteilungen in Seen. *Gas Wasser Abwasser* **72**: 456-461.
- Gächter, R. und A. Wüest (1992). Auswirkungen von Sanierungsmassnahmen auf den Trophiegrad und Sauerstoffhaushalt von Seen. *Eawag-News* **34D**: 27-32.
- Bosshard, A., Patterson, B.D. Straumann, U. Truol, P. Wichert, Th., and Wuest, A. (1983). Muon decay channelling and the Mu* site in silicon. *SIN Newsletter* **15** (Jan 1983): 87-89.