

Benjamin Kötz, Dr. sc. nat.

Earth Observation Scientist

Personal Data:

Day of birth: 10.12.1974

Place of birth: Hamburg

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Education

University of Zürich, Remote Sensing Laboratories, Switzerland - PhD, 2002-06

Title of Dissertation: [Radiative Transfer Modeling in Forest Canopies Based on Imaging Spectrometry and LIDAR](#)

University of Trier, Germany - M. sc. of Applied Environmental Sciences, 1995-2001

Major disciplines: Remote Sensing, Climatology / Minor subjects: Botany, Geography

Université de Caen, France - French language degree (1st/2nd DELF), 1994-95

Gymnasium Christianeum, Germany - Abitur (German A-levels), 1985-94

Eureka Senior High School, USA - Attendance of the Senior class, 1991-92

Experience

Research scientist, University of Zürich - RSL, Switzerland – since 2008

Tasks: Project coordinator of the [Hyper Swiss Net project](#) (5 Mio CHF, 6 project partners) - a project to develop Earth observation products (Ecosystem, land cover, atmospheric trace gases, snow properties & urban applications) based on imaging spectroscopy, Lecturer of Imaging Spectrometry courses.

ESA research fellow, ESRIN - Exploitation & Service Division, Italy – 2007-08

Tasks: Project management as Technical Officer of the Data User Element projects [DIVERSITY](#) (250 K €) and [GlobSnow](#) (1 Mio. €), preparation of tenders for future ESA projects (DUE & STSE program), Study on [SENTINEL2](#) specifications and level-2 prototypes, Liaison with international stakeholders of the United Nation Convention of Biological Diversity.

Consultant, NASA – Goddard Space Flight Center, USA – since 2006

Tasks: Co-Investigator of the NASA research project “[Model Inversion of Multiple-Sensor Data for Forest Biophysical Parameters Retrieval](#)” to prepare for new observations relevant to NASA Carbon Cycle and Ecosystems Roadmap programmatic elements: vegetation 3-D structure, biomass, and disturbance.

Research scientist, University of Zürich - RSL, Switzerland – 2006-07

Tasks: Radiative transfer modeling in vegetation canopies (forest, agriculture) for Imaging Spectroscopy and LIDAR, Fuel type mapping within the EU-project [FirePARADOX](#), Principal Investigator of a ESA [CHRIS/Proba Category-1 proposal](#), Lecturer of Imaging Spectrometry courses

Research assistant, University of Zürich - RSL, Switzerland – 2002-06

Tasks: Retrieval of fuel properties of heterogeneous canopies for forest fire management – work package of EU-project SPREAD ([Forest Fire Spread Prevention and Mitigation](#))

Scientific visit, NASA – Goddard Space Flight Center, USA – 2004

Tasks: Collaboration with NASA scientific staff of the [Biospheric Sciences Branch](#) on research related to 3D Radiative Transfer Modeling including imaging spectrometry and LIDAR.

Intern, INRA (Institut National de la Recherche Agronomique), France – 1999 & 2001

Tasks: Development of a methodology to derive biophysical maps from multispectral / temporal canopy reflectance – work package of EU-project CROMA ([Crop Reflectance Operational Models for Agriculture](#)), Scholar of the European program LEONARDO (1999)

Intern, United Nations Drug Control Program, Austria – 2000

Tasks: Development and implementation of a methodology to monitor illicit crops in several countries using satellite imagery ([Illicit Crop Monitoring Programme](#))

Scientific collaborator, University of Trier, Germany – 1998-2001

Tasks: Spectral determination of soil color, DEMON (Satellite-based Desertification Monitoring in the Mediterranean Basin), geometric and atmospheric correction of Landsat TM scenes, evaluation of canopy reflectance (wheat) in respect to several canopy properties as a basis for precision agriculture

Skills

Knowledge of languages: English: fluently, French: fluently, German: native language

Project management:

- Statement of Work preparation course, Italy - 2007
- Introductory course, Switzerland – 2005
- Total Quality Management: MBA module, NIMBAS-Institute, Netherlands – 2000

Computing: MATLAB, IDL, ERDAS/Imagine, ENVI, Geomatics/PCI, ARC-GIS, Microsoft Office, MacOSX, Unix, Windows XP

Scholarships / honorary posts

Finalist of the IEEE Student Prize paper competition, IGARSS'06 – 2006

Founding member of [CUBICWORLD.ORG](#), an internet job forum – 2001-current

Scholar and participant of the network of [efellows.net](#) – 2001-06

Scholar of the European exchange program LEONARDO – 1999

Member of the faculty & student council, Geography, University of Trier—1996-99

Publications

[16 peer reviewed journals](#) (6 first author, 10 co-author, h-index: 7^(Scopus)), 41 conference contributions

Member of the editorial board of the Remote Sensing Journal (ISSN 2072-4292).

Reviewer for the following journals: Remote Sensing of Environment, IEEE Transactions on Geoscience and Remote Sensing, IEEE Geoscience and Remote Sensing Letters, Forest Ecology and Management, International Journal of Remote Sensing, ISPRS Journal of Photogrammetry and Remote Sensing