

Dietrich Althausen



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Function

Senior Scientist

Department

Remote Sensing of Atmospheric Processes

Group

Ground-based remote sensing

Research areas & research interest

- Development and construction of lidar systems for aerosol research

- Development of lidar methods
- Mineral dust in the atmosphere
- Water vapor in the atmosphere
- Investigations of the worldwide atmospheric transport of particles
- Investigations to the effect of particles on radiation budget
- Influence of particles on the polarization state of light

Current projects

- Polly^{NET}(PI)
- Multidisciplinary drifting Observatory for the Study of Arctic Climate (MOSAIC)
- A risk index for health effects of mineral dust and associated microbes (DUSTRISK)

Completed projects

- Aerosol Characterization Experiment 2 (Portugal, 1997, PI)
- Lindenberg Aerosol Characterization Experiment 1998 (Lindenberg, 1998)
- Indian Ocean Experiment (Malediven, 1999-2000, four campaigns, PI)
- Pear-River-Delta experiment in Guangdong 2004 (PRD4, PI)
- International Lindenberg campaign for assessment of humidity- and cloud-profiling systems and its impact on high resolution modelling, Ziegendorf / Germany 2005 (LAUNCH)
- Saharan Mineral Dust Experiment 1 (Marocco, 2006, PI)
- Convective and orographically-induced precipitation study in the Black Forest, Germany 2007 (COPS)
- Saharan Mineral Dust Experiment 2 (Cap Verde, 2008, PI)
- Intercomparisons with the Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observations (CALIPSO) lidar (Cloud-Aerosol Lidar with Orthogonal Polarization, CALIOP), since 2006
- European Supersites for Atmospheric Aerosol Research 2006 - 2011 (EUSAAR), Leipzig, PI
- European integrated project on aerosol cloud climate air quality interactions 2007-2010 (EUCAARI), Brazil and China, PI
- Satellite-based aerosol mapping over megacities: Development of methodology and application in health and climate related studies at Leipzig and Guangdong (Megacities), 2007 – 2010, PI
- joint experiments with groups in Sweden 2010-2014 (VASA), Chile 2009-2010 (ALPACA), South Africa 2010-2011 (GOPHER)
- OCEANET Autonome Messplattformen zur Bestimmung des Stoff- und Energieaustausches zwischen Ozean und Atmosphäre, Atlantik, PI
- CADEX (Central Asian Dust EXperiment)
- 3D Widefield Aerosol Probing by Lidar Anchor (gefördert von German-Israeli Foundation for Scientific Research and Development GIF, PI)
- SALTRACE (Saharan Aerosol Long-range Transport and Aerosol-Cloud-Interaction Experiment, PI)
- Central Asian DUst Conference (CADUC), 8 - 12 April 2019, Dushanbe, Tajikistan
- Multidisciplinary drifting Observatory for the Study of Arctic Clima (MOSAIC) (Leg 5)

Measuring Systems (constructed and supervised)

BERTHA

MARTHA

Doppler wind lidar WiLi

Differential Absorption Lidar DIAL (now at University of Hohenheim)

Polly, Polly^{XT}

Radiosonde

Dual-polar sun photometer

Teaching

Lectures and seminars within the education to Master of Science / Meteorology

Supervision of Master theses and PhD theses

Memberships/Boards

VDI expert group Groundbased Remote Measurements of Meteorological Quantities

Curriculum vitae

Academic qualification

1977-1982 Student of physics University of Leipzig		
1992 PhD University of Leipzig		

Research Experience

1982-1990 Scientific staff Kombinat Polygraph Leipzig		
1982-1990 Delegate University of Leipzig		
1991 Scientific staff University of Leipzig		
Since 1992 Senior Scientist TROPOS, Leipzig		

Publications

all Publications

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