Lukas Pfitzenmaier -

Contact Details

Name:	Lukas Pfitzenmaier
Address:	Universität zu Köln Institut für Geophysik und Meteorologie Pohligstraße 3 50969 Köln, Germany
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Research Interests

- Precipitation formation processes in ice and mixed-phase clouds - ice particle microphysics
- Atmospheric radar measurements, ground based and space born - combination with other remote sensing techniques
- Experiences in analysis of spectral polarimetric radar variables and multi-wavelength radar observations.

Education

2012 - 2017 **PhD student** at **Delft University of Technology**, The Netherlands; Department Geoscience and Remote Sensing
Fellow of the Marie Curie Initial Training Network Initial Training for atmospheric Remote Sensing - ITaRS
Topic of the PhD Thesis: Ice particle growth processes within mixed phase clouds based on polarimetric and Doppler-radar observations

2007 - 2012 **Bachelor and Master Studies** at **University of Leipzig**, Germany; Faculty of Physics and Earth Sciences
Topic of the Master's Thesis: *
Determination of microphysical properties of liquid water clouds based on observations with radar, microwave radiometer and lidar
Topic of the Bachelor's Thesis: *
Influence of the planetary boundary layer and air-mass source on atmospheric aerosol particle concentration at the high mountain station BEO-Moussala, Bulgaria

* Written at the Leibniz Institute for Tropospheric Research, Leipzig, Germany

Work Experience

2010 - 2012 **Research Assistant** at the **Leibniz Institute of Tropospheric Research**, Leipzig, Germany within the Physics department, Working Group Atmospheric Aerosols
- data processing and management
- estimation of particle size distribution using best fits
- manage the wiki-page of the GUAN-network

2012 - 2017 **PhD Student** and the **TU Delft**, Delft, the Netherlands
- Fellowship of the ITaRS network (ITaRS: Initial Training for atmospheric Remote Senising was a Marie Curie Initial Training Network within the FP7 framwork of the EU)
- Organizing and performing the Analysis Composition of Clouds with Extended Polarization Techniques campaign (ACCEPT), 2014, Cabauw, the Netherlands.
- operation of the Transportable Atmospheric RAdar (TARA)
- operation of the CESAR Water Vapour, Aerosol and Cloud Lidar (CAELI)
- teaching assistance (MatLab for beginners, Iceland student field work)

Awards

2015 **Winner** of the **Outstanding Student Poster Award 2015** at EGU

2014 Best group work at the 2^{nd} ITaRS Summer School: "Clouds and Precipitation: Observations and Processes

Publications:

1. **L. Pfitzenmaier**, Y. Dufournet, C.M.H. Unal, and H.W.J. Russchenberg, *Retrieving Fall Streaks within Cloud Systems using Doppler Radar*, Journal of Atmospheric and Ocean Measurement Techniques, Volume 34 No. 4, (2017).

2. **L. Pfitzenmaier**, Y. Dufournet, C.M.H. Unal, and H.W.J. Russchenberg, *Influence of the liquid layer within mixed-phase clouds on radar observations*, Extended Abstract at the 8^{th} European Conference on Radar in Meteorology and Hydrology, Abstract No. 061, (2014).

List of Conference Contributions:

1. **L. Pfitzenmaier**, Y. Dufournet, C.M.H. Unal, and H.W.J. Russchenberg, *Retrieving fall streaks signatures in radar data to study microphysical changes of particle populations within a mixed phase clouds*, European Geosciences Union, Vienna, Austria, Talk, (2016).

2. **L. Pfitzenmaier**, Y. Dufournet, C.M.H. Unal, and H.W.J. Russchenberg, Poster, *Radar observations of ice particle growth along fall-streaks within mixed-phase clouds*, European Geosciences Union, Vienna, Austria, Poster, (2016).

3. **L. Pfitzenmaier**, C.M.H. Unal, Y. Dufournet, and H.W.J. Russchenberg, *Radar observations of ice particle growth along fall-streaks within mixed-phase clouds*, HD(CP)^2 conference - Understanding clouds and precipitation, Berlin, Germany, Poster (2016).

4. **L. Pfitzenmaier**, Y. Dufournet, C.M.H. Unal, and H.W.J. Russchenberg, *Radar observations of ice particle growth along fall-streaks within mixed-phase clouds*, 37^{th} Conference on Radar Meteorology, Norman, OK, United States of America, Talk, (2015).

5. **L. Pfitzenmaier**, Y. Dufournet, C.M.H. Unal, H.W.J. Russchenberg, A. Myaghov, and P. Seifert, *Effect of cloud microphysics on particle growth under mixed phase conditions*, European Geosciences Union, Vienna, Austria, Poster, (2015).

6. **L. Pfitzenmaier**, Y. Dufournet, and H.W.J. Russchenberg, *Ice particle growth processes within mixed-phase clouds*, TROPOF meeting, Roskilde, Denmark, Talk, (2014).

7. **L. Pfitzenmaier**, Y. Dufournet, C.M.H. Unal, and H.W.J. Russchenberg, Poster, *Influence of the liquid layer within mixed-phase clouds on radar observations*, 8^{th} European Conference on Radar in Meteorology and Hydrology, Garmisch-Parthenkirchen, Germany, Poster, (2014).

8. **L. Pfitzenmaier**, Y. Dufournet, and H.W.J. Russchenberg, *Separation of liquid and ice phase within mixed-phase clouds using combined radar and lidar measurements during HyMex*, 7^{th} HyMex workshop, Cassis, France, Poster, (2013).