

## Curriculum vitae – Dr. Mathias Palm

**Name:** Dr. Mathias Palm  
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**Birthday:** 21st of August 1971

### Professional Experience

- since 5.2006      Institute of Environmental Physics (IUP)  
University of Bremen  
**Scientist**  
Group leader in the AG Notholt, Institute of Environmental Physics, University of Bremen
- RAM (ground-based millimeterwave radiometry) within the IUP at the University of Bremen.
  - Thermal infrared (TIR) and mid-infrared (MIR) measurements of the atmosphere using FT-spectrometry
- 02.2000 to 09.2002: Graduate School of Social Sciences (GSSS)  
University of Bremen  
**Software engineer and computer administrator**
- Programming of the database QBIQ
  - Maintenance of the Linux systems
- 11.2000 to 03.2001: Technical University of Berlin and Kernforschungszentrum Rosendorf  
**Physicist**
- Design of an X-Ray optics
- since 01.2012      **Associate editor** for the journal „Atmospheric Chemistry and Physics“

### Education

- 10.2002 to 05.2006: Institute of Environmental Physics  
University of Bremen  
**Doctorate in Physics**
- Degree: Dr. rer. nat. (Magna cum laude)
  - Title: „Extension and combination of existing remote-sensing instruments“; <http://nbn-resolving.de/urn:nbn:de:gbv:46-diss000103890>
- 10.1995 bis 01.2000: University of Auckland, New Zealand  
University of Bremen  
**Study of Physics and Mathematics**  
MSc (Honors)

**Publicationlist Dr. Mathias Palm**

- Ryan, N. J.** ; Kinnison, D. E.; Garcia, R. R.; Hoffmann, C. G.; Palm, M.; Raffalski, U. & Notholt, J. Assessing the ability to derive rates of polar middle-atmospheric descent using trace gas measurements from remote sensors *Atmospheric Chemistry and Physics*, 2018, 18, 1457-1474
- Dammers, E.** ; Schaap, M.; Haaima, M.; Palm, M.; Kruit, R. W.; Volten, H.; Hensen, A.; Swart, D. ; Erisman J. Measuring atmospheric ammonia with remote sensing campaign: Part 1 – Characterisation of vertical ammonia concentration profile in the centre of The Netherlands *Atmospheric Environment* 2017, 169, 97 - 112
- Hase, N.; Miller, S. M.; Maaß, P.; Notholt, J.; Palm, M. ; Warneke, T. Atmospheric inverse modeling via sparse reconstruction *Geoscientific Model Development*, 2017, 10, 3695-3713
- Wang, Y.** ; Deutscher, N. M.; Palm, M.; Warneke, T.; Notholt, J.; Baker, I.; Berry, J.; Suntharalingam, P.; Jones, N.; Mahieu, E.; Lejeune, B.; Hannigan, J.; Conway, S.; Mendonca, J.; Strong, K.; Campbell, J. E.; Wolf, A. & Kremser, S. Towards understanding the variability in biospheric CO<sub>2</sub> fluxes: using FTIR spectrometry and a chemical transport model to investigate the sources and sinks of carbonyl sulfide and its link to CO<sub>2</sub> *ACP*, 2016, 16, 2123-2138
- Kremser, S.** ; Jones, N. B.; Palm, M.; Lejeune, B.; Wang, Y.; Smale, D. & Deutscher, N. M. Positive trends in Southern Hemisphere carbonyl sulfide (OCS) *Geophysical Research Letters*, 2015, 42, 9473-9480
- Mahieu, E.** ; Chipperfield, M. P.; Notholt, J.; Reddmann, T.; Anderson, J.; Bernath, P. F.; Blumenstock, T.; Coffey, M. T.; Dhomse, S. S.; Feng, W.; Franco, B.; Froidevaux, L.; Griffith, D. W. T.; Hannigan, J. W.; Hase, F.; Hossaini, R.; Jones, N. B.; Morino, I.; Murata, I.; Nakajima, H.; Palm, M.; Paton-Walsh, C.; III, J. M. R.; Schneider, M.; Servais, C.; Smale, D. & Walker, K. A. 'Recent Northern Hemisphere stratospheric HCl increase due to atmospheric circulation changes', *Nature*, 2014, 515, 104-107
- Mariani, Z.** Strong, K.; Palm, M.; Lindenmaier, R.; Adams, C.; Zhao, X.; Savastiouk, V.; McElroy, C. T.; Goutail, F. & Drummond, J. R. 'Year-round retrievals of trace gases in the Arctic using the Extended-range Atmospheric Emitted Radiance Interferometer', in *Atmos. Meas. Tech.*, 2013, 6, 1549-1565