



DFG Evaluation Colloquium



Priority Programme SPP 1294/2
HALO

Welcome and Introduction

DLR, Oberpfaffenhofen, 11-12 March 2010

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SPP 1294/2 HALO

- SPP 2nd phase:
funding period: summer 2010 – summer 2013
54 proposals submitted in Jan. 2010
(1st phase: 49 proposals, 23 funded)
- evaluation colloquium 11-12 March 2010:
many thanks to the members of the review panel!
- coordinator of the 1st phase,
J. Heintzenberg retired
- New team of coordinators:
 - J. Curtius, U Frankfurt
 - M. Wendisch, U Leipzig
 - M. Scheinert, TU Dresden



DFG Priority Programme 1294 "HALO" Evaluation Colloquium Schedule

Thursday, 11 March 2010

- 8:30-9:30 first meeting of the review panel
9:00-9:30 registration for applicants
Auditorium of DLR administration building
9:30-11:30 presentations
9:30 Welcome and introduction (J. Curtius)
and opening remarks by DFG Head Office (H. Boos)
9:45 U. Schumann: "HALO: Status and Vision"
10:05 U. Pöschl: "Aerosols@HALO"
10:25 M. Wendisch: "Clouds and Precipitation"
10:45 A. Engel: "role of HALO for UT/LS research"
11:05 R. Koppmann: "role of HALO for
(photo)chemistry research"
11:25 C. Förste: "HALO: a platform for
Earth Observations and Geophysics"

Aircraft hangar

- 11:45 - 13:15 poster session (incl. coffee)**
Applicants in attendance for review of **odd** poster numbers

DLR cantine

13:15 – 14:15 lunch break

Aircraft hangar

- 14:15 - 15:45 poster session (incl. coffee)**
Applicants in attendance for review of **even** poster numbers
16:00-19:00 review panel meeting

16:00-18:30 for applicants: opportunity for planning meetings and exchange

Aircraft hangar

- 19:00 dinner**
hosted by DLR
afterwards bus transfer to hotels arranged by DLR
20:00 review panel meeting continued

Friday, 12 March 2010

Aircraft hangar

- 9:00-10:00 poster session**
all applicants are expected to be present until 11:00
to answer remaining questions by review panel

10:00 - 14:00 final review panel meeting (incl. lunch)

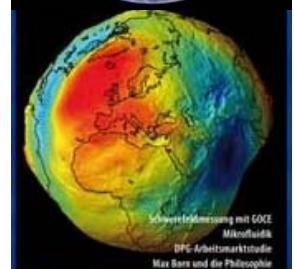
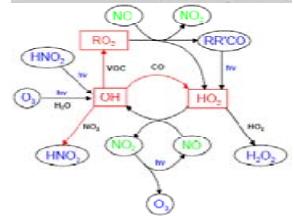
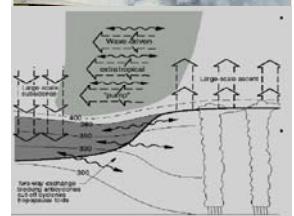
**14:00 preliminary notice of results to coordinators
by the DFG Head Office**





proposals to SPP 1294 second phase

subject area	number of proposals
A) Aerosols	6
B) Clouds & Precipitation	17
C) Transport and Dynamics of the Troposphere & LS	10
D) Photochemistry of the free Troposphere & Tropopause	9
E) Remote Sensing of Geoscientific Parameters & Surface Processes	5
F) Geophysical & Geodynamical Processes	3
G) Others	3





HALO Missions

	Mission	PI
1.	OMO	Lelieveld, Wahner, Harder
2.	ML-CIRRUS	Schumann, Petzold
3.	TACTS-SALSA	Engel
4.	POLSTRACC	Blom
	ACRIDICON	Pöschl, Wendisch
	ANT-HALO	Scheinert
	CIRRUS-RS	Riese
	EO-HALO	Nieke, Ruhtz
	GEO-HALO	Scheinert
	NARVAL-ACPC	Stevens et al.
	NEPTUN/HYMEX	Corsmeier
	PASTA MARE	Eiden
	SHIVA	Pfeilsticker
	T-NAWDEX	Dörnbrack

- many thanks to mission PIs for providing mission data sheets and mission white papers
- so far, no priority of missions after the first 4 demo missions decided by WLA



Tentative HALO schedule

2010	technical demonstration flights
2011	OMO ML-CIRRUS
2012	POLSTRACC TACTS 1 mission
2013	3-4 missions
2014	3-4 missions
...	...

List of proposals for SPP 1294/2

1. **Ament** et al., Using the HALO Microwave Package (HAMP) for cloud and precipitation research
2. **Behrendt**, Uni Hohenheim: Temperature and Aerosol Profiling wth rotational Raman lidar, Code name: TAPIR
3. **Blindow** and Jenett (BGR Hannover): Development of a Radio-Echo Sounding System for HALO and its Application in Antarctica (*ANTHALO-RES*)
4. **Bohn** et al., FZ Jülich: Solar Radiation Measurements on HALO
5. **Borrmann** and Schnaiter, Mainz: Airborne in-situ characterisation of the microphysical and optical properties of small ice crystals and large hydrometeors (AMOSIL): HALO implementation and analysis methodology
6. **Bundke** et al. : Uni Frankfurt: Development and application of an ice nucleus (IN) counter for HALO (FINCH-HALO)
7. **Burrows**, Universität Bremen, PEACE (PEroxyl Adicals measured by OF-Cavity Enhanced spectroscopy in the free troposphere with a focus on the upper troposphere/lower stratosphere)
8. **Burrows**, Bovensmann, Bremen: Characterization of carbon greenhouse gases by airborne absorption spectroscopy – The Methane Airborne Mapper for EO-HALO (MAMAP-HALO)
9. **Craig** and Kiemle, LMU Munich and DLR: Combined airborne lidar measurements of moisture transport and cirrus properties: HALO-LIDAR
10. **Curtius** and Schneider, U Frankfurt and MPI Mainz: Influence of aerosol composition on cloud formation: in-situ studies by mass spectrometric measurements onboard HALO
11. **Curtius**, Wendisch, Scheinert, U Frankfurt: Coordination of SPP 1294 HALO
12. **Dietrich** and Wickert, (GFZ), Airborne GNSS Reflectometry, Scatterometry and Occultation in Antarctica (*ANTHALO-RSO*)
13. **Dörnbrack** et al., DLR O'hofen, Integrated HALO Mission Support System
14. **Dyroff**, KIT Karlsruhe: Dyroff, Christoph: Performance improvement and airborne employment of a highly sensitive tunable-diode laser spectrometer for in-situ measurements of the isotopic composition of water vapor.
15. **Ebert** et al., Uni Heidelberg, HAI Quality and Demonstration
16. **Ehrlich** et al., Uni Leipzig: Satellite validation of microphysical and optical properties of deep convective clouds retrieved using solar reflectivity measurements
17. **Elbern** and Kaufmann, Uni Köln: Multi-scale analysis system for HALO missions by advanced chemical data assimilation (MASHADA)
18. **Engel**, Uni Frankfurt: HALO TACTS Mission co-ordination for TACTS: Transport And Composition in the UT/LMS
19. **Engel** and Curtius, Uni Frankfurt: GhoST-TOF: Gaschromatograph for Observation of stratospheric tracers using time-of-flight mass spectrometry
20. **Engel**, Uni Frankfurt: FACT-HALO: Fast Analysis with Chromatographic Techniques
21. **Scheinert** et al., TU Dresden: Improvement of the Earth's Potential Fields in Antarctica Utilizing Airborne Measurements on Board the High-Altitude Long-Range Research Aircraft (HALO) (*ANTHALO-PF*)
22. **Gerbig**, MPI-BGC Jena: Airborne greenhouse gas measurements by compact cavity ring-down for constraining atmospheric transport and validating remote sensing
23. **Gierens**, Schumann, Voigt, DLR O'hofen: Integration and operation of a miniature water vapour TDL instrument on the HALO with data link to the weather centres via the Global Transmission System (GTS) for the improvement of the weather forecast (Water Vapour Analyser – WARAN)
24. **Groß** et al., FZ Jülich, Lagrangian Support of Stratospheric Operations of HALO (LASSO)
25. **Hagen** und Mayer, DLR O'hofen, Estimation of the 3-D wind field with the HALO cloud radar
26. **Hengst**, IfT Leipzig: HALO data base, further development and setup of a data retrieval and long term archive system
27. **Herrmann**, IfT Leipzig: Hygroscopic Growth of Accumulation Mode Particles Measured with HALO (HyGroPart)
28. **Höpfner** and Kaufmann, FZ Jülich: Retrieval of atmospheric state variables from GLORIA limb emission spectral images (RASGLO)
29. **Jäkel** et al., Uni Mainz: Retrieval of vertical cloud properties of deep-convective clouds by spectral radiance measurements

30. **Kleinert**, KIT Karlsruhe: Methods and algorithms for data exploitation of the imaging Fourier transform spectrometer GLORIA on HALO (MaxiFTS)
31. **Koppmann** et al., Bergische Universität Wuppertal: Measurements of isotope ratios in atmospheric trace gases on HALO – MIRAH
32. **Koppmann** et al., Bergische Universität Wuppertal: Development of a PTR-TOF-MS for the operation on HALO (HALO-PTR-TOF-MS).
33. **Kottmeier** et al., KIT Karlsruhe: Research application of the novel multi sensor dropsonde for HALO for investigation of cyclones and embedded convection causing high impact weather in the Mediterranean
34. **Krämer** und Schiller, FZ Jülich, ICG-1: Advanced Water and Ice investigations in Subtropical, Mid-Latitude and Arctic Cirrus (ACIS)
35. **Martinez**, MPI-C Mainz, Highly sensitive and selective measurements of NO₂ on HALO
36. **Melsheimer** et al., Uni Bremen: Cloud Ice Remote Sensing with Sub-millimetre Radiometry - ISMAR on HALO (CIRSUB)
37. **Mertes**, IfT Leipzig: HALO-CVI
38. **Minikin**, DLR Oberpfaffenhofen, Influence of deep convection on particle formation and aerosol budget in the free troposphere from airborne observations with HALO
39. **Möhler** et al., KIT Karlsruhe: Test and intercomparison of water, aerosol, cloud droplet, ice particle, and ice nuclei instruments for the HALO aircraft using the AIDA facility (AIDA-HALO)
40. **Pfeilsticker** et al., Universität Heidelberg: SHIVA (Stratospheric ozone: Halogen Impacts in a Varying Atmosphere) – Mission proposal
41. **Pfeilsticker** et al., Uni Heidelberg: DOAS, Differential Optical Absorption Spectroscopy
42. **Pöschl** and Wendisch, Uni Leipzig: COORDINATION of the HALO Demo Mission “Aerosol, Cloud, Precipitation, and Radiation Interactions and Dynamics of Extra-Tropical Convective Cloud Systems” (ACRIDICON)
43. **Pöschl** and Andreae, MPI-C Mainz: Modular instrument package for aerosol optical properties and cloud condensation nuclei activity
44. **Preusker** and Ruhtz, FU Berlin, Enhancement and Support of the Airborne Multi-Spectral Sunphoto- & Polarimeter AMSSP) and the Universal Radiation Measurement System (URMS)
45. **Riese**, Kaufmann and Schiller, FZ Jülich: CIRRUS - Remote Sensing: A HALO mission to investigate water vapour and cirrus clouds in the lowermost stratosphere
46. **Ruhtz** et al., FU Berlin: EO-HALO Mission Support
47. **Scheinert**, TU Dresden: Geoscientific Earth Observation with HALO in the Aegean region (*GEOHALO*)
48. **Schlager** et al., DLR: An aircraft-based Ion Trap Mass Spectrometer Instrument ITCIMS for measurements of atmospheric trace gases and ions aboard HALO – Phase 2: Extensions of ITCIMS capabilities, flight tests on the FALCON, and deployment on HALO
49. **Schlager** et al., DLR: Development and use of a perfluorocarbon tracer system for Lagrangian aircraft experiments to study dynamical, photochemical, and microphysical processes – Phase 2 (PERTRAS-2)
50. **Voigt**, DLR und Universität Mainz: Development and operation of a mass spectrometer for the fast and accurate detection of water vapour in the upper troposphere/lower stratosphere; AIMS - H₂O - Atmospheric chemical Ionization Mass Spectrometer for the detection of H₂O
51. **Wegener**, Jülich, FAVOR-HALO: Fast Analysis of Volatile Organics with gas chromatography/mass spectrometry (GC/MS) on HALO
52. **Weigel**, Szakall, Borrmann, Uni Mainz, Implementation of a Precipitation Imaging Probe (PIP)
53. **Wiegner**, LMU München: Implementation of a compact depolarization lidar for cloud- and aerosol-remote sensing
54. **Zahn**, KIT Karlsruhe, A lightweight and highly sensitive chemical mass spectrometer for organic compounds

