

Collaborations and networks

Institutions collaborating with research projects at Jungfrauoch and Gornergrat in 2017:

Institution / network	Country	Collaborating with project:
Australian Nuclear Science and Technology Organisation (ANSTO) Sydney Australia	Australia	Baseline characterization of air masses using radon-222 Department of Environmental Sciences University of Basel Bernoullistrasse 30 CH-4056 Basel
CSIRO Marine and Atmospheric Research Paul Krummel, Ray Langenfelds, Paul Steele Aspendale Australia	Australia	Isotopic composition of N ₂ O at Jungfrauoch High Altitude Station Empa Laboratory for Air Pollution and Environmental Technology Überlandstrasse 129 CH-8600 Dübendorf
University of Innsbruck Dr. Marc Lüscher	Austria	Exploration of the Jochloch cave Schweiz. Gesellschaft für Höhlenforschung Sektion Bern CH-3000 Bern
Belgian Institute for Space Aeronomy Atmospheric physics and chemistry Dr. Michel Van Roozendael Ringlaan 3 B-1180 Brussels Belgium	Belgium	National Air Pollution Monitoring Network (NABEL) Empa Laboratory for Air Pollution and Environmental Technology Überlandstrasse 129 CH-8600 Dübendorf
BIRA-IASB (Institut d'Aéronomie Spatiale de Belgique)	Belgium	High resolution, solar infrared Fourier Transform spectrometry. Application to the study of the Earth atmosphere University of Liège Institut d'Astrophysique et de Géophysique Allée du six Août, 19 - Bâtiment B5a B-4000 Sart Tilman (Liège, Belgium)
Université Libre de Bruxelles for IASI FORLI data validation	Belgium	Atmospheric physics and chemistry Royal Belgian Institute for Space Aeronomy (BIRA-IASB) Ringlaan 3 B-1180 Brussels Belgium

Institution / network	Country	Collaborating with project:
Université de Liège Institut d'Astrophysique et de Géophysique and NDACC Partners B-4000 Sart Tilman (Liège)	Belgium	Atmospheric physics and chemistry Royal Belgian Institute for Space Aeronomy (BIRA-IASB) Ringlaan 3 B-1180 Brussels Belgium
Université de Liège Institut d'Astrophysique et de Géophysique B-4000 Sart Tilman (Liège)	Belgium	National Air Pollution Monitoring Network (NABEL) Empa Laboratory for Air Pollution and Environmental Technology Überlandstrasse 129 CH-8600 Dübendorf
University of Toronto Toronto, Canada	Canada	Ice residual composition measurements by single particle mass spectrometry during INUIT/CLACE-JFJ 2017 Max Planck Institute for Chemistry Particle Chemistry Department Hahn-Meitner-Weg 1 D-55128 Mainz Germany
University of Toronto Toronto, Canada	Canada	Field measurements of aerosols acting as ice nucleating particles and their influence on mixed-phase clouds Swiss Federal Office of Technology, ETH Zürich Institute for Atmospheric and Climate Science Universitätsstrasse 16 CH-8092 Zürich, Switzerland
University of Toronto Toronto, Canada	Canada	Measurement of clouds and secondary ice processes at Jungfrauoch Centre for Atmospheric Science University of Manchester Oxford Road Manchester, M13 9PL United Kingdom
ACTRIS (Aerosol, Clouds and Trace Gases Research Network)	European network	Halogenated greenhouse gases at Jungfrauoch Empa Laboratory for Air Pollution / Environmental Technology Überlandstrasse 129 CH-8600 Dübendorf

Institution / network	Country	Collaborating with project:
ACTRIS (Aerosol, Clouds and Trace Gases Research Network)	European network	National Air Pollution Monitoring Network (NABEL) Empa Laboratory for Air Pollution and Environmental Technology Überlandstrasse 129 CH-8600 Dübendorf
ACTRIS (Aerosol, Clouds and Trace Gases Research Network)	European network	Ice Nucleating Particles (INP) at Jungfraujoch during CLACE 2017 Goethe-University Frankfurt Institute for Atmospheric and Environmental Sciences Altenhöferallee 1 D-60438 Frankfurt am Main, Germany
BACCHUS	European network	Ice Nucleating Particles (INP) at Jungfraujoch during CLACE 2017 Goethe-University Frankfurt Institute for Atmospheric and Environmental Sciences Altenhöferallee 1 D-60438 Frankfurt am Main, Germany
Collaboration with S&T for the CAMS, QA4ECV and S5P Validation Server	European network	Atmospheric physics and chemistry Royal Belgian Institute for Space Aeronomy (BIRA-IASB) Ringlaan 3 B-1180 Brussels, Belgium
Collaboration with European FTIR and UV-Vis teams and modelling teams in the frame of the EU projects GAIA-CLIM and QA4EVC	European network	Atmospheric physics and chemistry Royal Belgian Institute for Space Aeronomy (BIRA-IASB) Ringlaan 3 B-1180 Brussels, Belgium
E-GVAP II (EUMETNET GPS Water Vapour Programme)	European network	Automated GNSS Network Switzerland (AGNES) Swiss Federal Office of Topography swisstopo Seftigenstrasse 264 CH-3084 Wabern
EMEP (European Monitoring and Evaluation Programme)	European network	National Air Pollution Monitoring Network (NABEL) Empa Laboratory for Air Pollution and Environmental Technology Überlandstrasse 129 CH-8600 Dübendorf

Institution / network	Country	Collaborating with project:
European FP7 Project Real-Time Database for High Resolution Neutron Monitor Measurements (NMDB) http://www.nmdb.eu/	European network	Neutron monitors - Study of solar and galactic cosmic rays Universität Bern Physikalisches Institut Sidlerstrasse 5 CH-3012 Bern
GAW-CH	European network	High resolution, solar infrared Fourier Transform spectrometry. Application to the study of the Earth atmosphere University of Liège Institut d'Astrophysique et de Géophysique Allée du six Août, 19 - Bâtiment B5a B-4000 Sart Tilman (Liège, Belgium)
GNSS4SWEC (COST EU project)	European network	Automated GNSS Network Switzerland (AGNES) Swiss Federal Office of Topography swisstopo Seftigenstrasse 264 CH-3084 Wabern
ICOS Integrated Carbon Observation System https://www.icos-ri.eu	European network	Long-term observations of $^{14}\text{CO}_2$ at Jungfraujoch Universität Heidelberg Institut für Umweltphysik Im Neuenheimer Feld 229 D-69120 Heidelberg
ICOS Integrated Carbon Observation System http://www.icos-ri.eu	European network	National Air Pollution Monitoring Network (NABEL) Empa Laboratory for Air Pollution and Environmental Technology Überlandstrasse 129 CH-8600 Dübendorf
ICOS Integrated Carbon Observation System https://www.icos-ri.eu/	European network	Continuous measurement of stable CO_2 isotopes at Jungfraujoch, Switzerland Empa Laboratory for Air Pollution and Environmental Technology Überlandstrasse 129 CH-8600 Dübendorf
ICOS Integrated Carbon Observation System partners https://www.icos-ri.eu/	European network	Flask comparison on Jungfraujoch Max Planck Institut für Biogeochemie Hans Knöll Str. 10 D-007745 Jena

Institution / network	Country	Collaborating with project:
ICOS Integrated Carbon Observation System partners https://www.icos-ri.eu/	European network	High precision carbon dioxide and oxygen measurements at Jungfraujoch Universität Bern Physikalisches Institut Sidlerstrasse 5 CH-3012 Bern
InGOS (Integrated non-CO2 Greenhouse gas Observation System)	European network	National Air Pollution Monitoring Network (NABEL) Empa Laboratory for Air Pollution and Environmental Technology Überlandstrasse 129 CH-8600 Dübendorf
INUIT (Ice Nuclei Research Unit)	European network	Ice Nucleating Particles (INP) at Jungfraujoch during CLACE 2017 Goethe-University Frankfurt Institute for Atmospheric and Environmental Sciences Altenhöferallee 1 D-60438 Frankfurt am Main Germany
RINGO (Readiness of ICOS for Necessities of integrated Global observations)	European network	Continuous measurement of stable CO ₂ isotopes at Jungfraujoch, Switzerland Empa Laboratory for Air Pollution and Environmental Technology Überlandstrasse 129 CH-8600 Dübendorf
University of Helsinki Department of Physics Prof. M. Kulmala Helsinki, Finland	Finland	The Global Atmosphere Watch Aerosol Program at Jungfraujoch Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland
INRA (Institut national de la recherche agronomique) Pathologie vegetale Montfavet France	France	Characterisation of biological ice nucleators at cloud height University of Basel Department of Environmental Sciences Bernoullistrasse 30 CH-4056 Basel

Institution / network	Country	Collaborating with project:
LATMOS France (SAOZ) F. Goutail, J.-P. Pommerau, A. Pazmino	France	Atmospheric physics and chemistry Royal Belgian Institute for Space Aeronomy (BIRA-IASB) Ringlaan 3 B-1180 Brussels Belgium
Observatoire Midi-Pyrénées Dr. Jeroen Sonke GET Toulouse, France	France	Tracing sources of selenium and iodine in precipitation from the high altitude sites Jungfraujoch and Pic du Midi Eawag Department Water Resources and Drinking Water, Environmental Inorganic Geochemistry Group Überlandstrasse 133 CH-8600 Dübendorf
Bavarian Academy of Sciences Alfons-Goppel-Strasse 11 D-80539 München	Germany	Absolute gravimetric calibration line Interlaken – Jungfraujoch Federal Office of Topography swisstopo Seftigenstrasse 264 CH-3084 Wabern
ECAC and TROPOS Prof. A. Wiedensohler Dr. T. Müller Dr. S. Mertes Leipzig, Germany	Germany	The Global Atmosphere Watch Aerosol Program at the Jungfraujoch Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland
Goethe-University Frankfurt Institute for Atmospheric and Environmental Sciences Frankfurt am Main, Germany	Germany	Characterization of ice nucleating aerosol particles by single particle mass spectroscopy and filter sampling, INUIT-CLACE-2017 Institute of Meteorology and Climate Research, Karlsruhe Institute of Technology Hermann-von-Helmholtz-Platz1 D-76344 Eggenstein-Leopoldshafen Germany
Goethe-University Frankfurt Institute for Atmospheric and Environmental Sciences Frankfurt am Main, Germany	Germany	Ice residual composition measurements by single particle mass spectrometry during INUIT/CLACE-JFJ 2017 Max Planck Institute for Chemistry Particle Chemistry Department Hahn-Meitner-Weg 1 D-55128 Mainz Germany

Institution / network	Country	Collaborating with project:
Goethe-University Frankfurt Institute for Atmospheric and Environmental Sciences Frankfurt am Main, Germany	Germany	Composition analysis of ice particle residuals combining aerosol mass spectrometry and counterflow virtual impactor technique Leibniz Institut für Troposphärenforschung Permoserstrasse 15 D-04318 Leipzig Germany
Goethe-University Frankfurt Institute for Atmospheric and Environmental Sciences Frankfurt am Main, Germany	Germany	Measurement of clouds and secondary ice processes at Jungfraujoch Centre for Atmospheric Science University of Manchester Oxford Road Manchester, M13 9 PL United Kingdom
Helmholtz-Zentrum Prof. Ralf Ebinghaus Dr. Gandrass Jürgen Geesthacht, Germany	Germany	SwissQuick: Emissions and imissions of atmospheric mercury in Switzerland ETH Zurich Institute for Chemical and Bioengineering Vladimir-Prelog-Weg 1 CH-8093 Zürich
IMK (Forschungszentrum Karlsruhe)	Germany	High resolution, solar infrared Fourier Transform spectrometry. Application to the study of the Earth atmosphere University of Liège Institut d'Astrophysique et de Géophysique Allée du six Août, 19 - Bâtiment B5a B-4000 Sart Tilman (Liège, Belgium)
Institute of Atmospheric Physics, DLR Dr. A. Petzold Oberpfaffenhofen, Germany	Germany	The Global Atmosphere Watch Aerosol Program at Jungfraujoch Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland
Johann Wolfgang Goethe Universität Frankfurt am Main Institut für Atmosphäre und Umwelt Prof. J. Curtius Frankfurt am Main, Deutschland	Germany	The Global Atmosphere Watch Aerosol Program at Jungfraujoch Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland

Institution / network	Country	Collaborating with project:
Karlsruhe Institute of Technology (KIT) Institute of Meteorology and Climate Research Dr. Martin Schnaiter Dr. Corinna Hoose Karlsruhe, Germany	Germany	The Global Atmosphere Watch Aerosol Program at Jungfraujoch Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen, Switzerland
Karlsruhe Institute of Technology (KIT) Karlsruhe, Germany	Germany	Ice residual composition measurements by single particle mass spectrometry during INUIT/CLACE-JFJ 2017 Max Planck Institute for Chemistry Particle Chemistry Department Hahn-Meitner-Weg 1 D-55128 Mainz, Germany
Karlsruhe Institute of Technology (KIT) Karlsruhe, Germany	Germany	Composition analysis of ice particle residuals combining aerosol mass spectrometry and counterflow virtual impactor technique Leibniz Institut für Troposphärenforschung Permoserstrasse 15 D-04318 Leipzig, Germany
Karlsruhe Institute of Technology (KIT) Karlsruhe, Germany	Germany	Measurement of clouds and secondary ice processes at Jungfraujoch Centre for Atmospheric Science University of Manchester Oxford Road Manchester, M13 9 PL United Kingdom
Leibniz Institute for Tropospheric Research Dr. S. Mertes D-04318 Leipzig Germany	Germany	Characterization of ice nucleating aerosol particles by single particle mass spectroscopy and filter sampling, INUIT-CLACE-2017 Institute of Meteorology and Climate Research, Karlsruhe Institute of Technology Hermann-von-Helmholtz-Platz1 D-76344 Eggenstein-Leopoldshafen Germany
Leibniz Institute for Tropospheric Research Leipzig, Germany	Germany	Ice residual composition measurements by single particle mass spectrometry during INUIT/CLACE-JFJ 2017 Max Planck Institute for Chemistry Particle Chemistry Department Hahn-Meitner-Weg 1 D-55128 Mainz Germany

Institution / network	Country	Collaborating with project:
Leibniz Institute for Tropospheric Research Leipzig, Germany	Germany	Measurement of clouds and secondary ice processes at Jungfraujoch Centre for Atmospheric Science University of Manchester Oxford Road Manchester, M13 9 PL United Kingdom
Max-Planck Institute for Biogeochemistry Hans Knöll Str. 10 D-007745 Jena Germany	Germany	Continuous measurement of stable CO ₂ isotopes at Jungfraujoch, Switzerland Empa Laboratory for Air Pollution and Environmental Technology Überlandstrasse 129 CH-8600 Dübendorf
Max-Planck-Institut für Chemie Biogeochemistry Department Dr. U. Pöschl Mainz	Germany	The Global Atmosphere Watch Aerosol Program at Jungfraujoch Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland
Max-Planck-Institut für Biogeochemie Jena	Germany	High precision carbon dioxide and oxygen measurements at Jungfraujoch Universität Bern Physikalisches Institut Sidlerstrasse 5 CH-3012 Bern
Max-Planck-Institut für Chemie Dr. J. Schneider D-55128 Mainz Germany	Germany	Characterization of ice nucleating aerosol particles by single particle mass spectroscopy and filter sampling, INUIT-CLACE-2017 Institute of Meteorology and Climate Research, Karlsruhe Institute of Technology Hermann-von-Helmholtz-Platz 1 D-76344 Eggenstein-Leopoldshafen Germany
Max-Planck-Institut für Chemie Dr. J. Schneider D-55128 Mainz Germany	Germany	Measurement of clouds and secondary ice processes at Jungfraujoch Centre for Atmospheric Science University of Manchester Oxford Road Manchester, M13 9 PL United Kingdom

Institution / network	Country	Collaborating with project:
Max-Planck-Institut für Chemie Particle Chemistry Department Dr. J. Schneider Prof. S. Borrmann Mainz	Germany	The Global Atmosphere Watch Aerosol Program at Jungfraujoch Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland
Max-Planck-Institute Mainz, Germany	Germany	Composition analysis of ice particle residuals combining aerosol mass spectrometry and counterflow virtual impactor technique Leibniz Institut für Troposphärenforschung Permoserstrasse 15 D-04318 Leipzig Germany
Max-Planck-Institute for Chemistry Dr. Jacob Fugal Mainz, Germany	Germany	Field measurements of aerosols acting as ice nucleating particles and their influence on mixed-phase clouds Swiss Federal Office of Technology, ETH Zürich Institute for Atmospheric and Climate Science Universitätsstrasse 16 CH-8092 Zürich, Switzerland
Max-Planck-Institut für Biogeochemie Jena	Germany	High precision carbon dioxide and oxygen measurements at Jungfraujoch Universität Bern Physikalisches Institut Sidlerstrasse 5 CH-3012 Bern
SFC Energy AG Eugen-Sänger-Ring 7 D-85649 Brunenthal	Germany	Performance of Methanol fuel cells in alpine environments armasuisse S+T Test Centre Feuerwerkerstrasse 39 CH-3602 Thun Switzerland
Technische Universität Darmstadt Institut für Angewandte Geowissenschaften Prof. M. Ebert D-64287 Darmstadt	Germany	Ice Nucleating Particles (INP) at Jungfraujoch during CLACE 2017 Goethe-University Frankfurt Institute for Atmospheric and Environmental Sciences Altenhöferallee 1 D-60438 Frankfurt am Main Germany

Institution / network	Country	Collaborating with project:
Technische Universität Darmstadt Institut für Angewandte Geowissenschaften Prof. M. Ebert D-64287 Darmstadt	Germany	Characterization of ice nucleating aerosol particles by single particle mass spectroscopy and filter sampling, INUIT-CLACE-2017 Institute of Meteorology and Climate Research, Karlsruhe Institute of Technology Hermann-von-Helmholtz-Platz1 D-76344 Eggenstein-Leopoldshafen Germany
Technische Universität Darmstadt Darmstadt, Germany	Germany	Ice residual composition measurements by single particle mass spectrometry during INUIT/CLACE-JFJ 2017 Max Planck Institute for Chemistry Particle Chemistry Department Hahn-Meitner-Weg 1 D-55128 Mainz Germany
Technische Universität Darmstadt Darmstadt, Germany	Germany	Composition analysis of ice particle residuals combining aerosol mass spectrometry and counterflow virtual impactor technique Leibniz Institut für Troposphärenforschung Permoserstrasse 15 D-04318 Leipzig Germany
Technische Universität Darmstadt Darmstadt, Germany	Germany	Measurement of clouds and secondary ice processes at Jungfraujoch Centre for Atmospheric Science University of Manchester Oxford Road Manchester, M13 9 PL United Kingdom
Universität Bielefeld Bielefeld, Germany	Germany	Ice residual composition measurements by single particle mass spectrometry during INUIT/CLACE-JFJ 2017 Max Planck Institute for Chemistry Particle Chemistry Department Hahn-Meitner-Weg 1 D-55128 Mainz, Germany
Universität Darmstadt Institut für Mineralogie Prof. S. Weinbruch Darmstadt, Germany	Germany	The Global Atmosphere Watch Aerosol Program at Jungfraujoch Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen, Switzerland

Institution / network	Country	Collaborating with project:
ACE science team http://www.ace.uwaterloo.ca/participants.html /	International network	High resolution, solar infrared Fourier Transform spectrometry. Application to the study of the Earth atmosphere University of Liège Institut d'Astrophysique et de Géophysique Allée du six Août, 19 - Bâtiment B5a B-4000 Sart Tilman (Liège, Belgium)
AGAGE (Advanced Global Atmospheric Gases Experiment)	International network	Halogenated Greenhouse Gases at Jungfrauoch Empa Laboratory for Air Pollution and Environmental Technology Überlandstrasse 129 CH-8600 Dübendorf Switzerland
Both the UV-Vis and FTIR observations contribute to the international Network for the Detection of Atmospheric Composition Changes (NDACC)	International network	Atmospheric physics and chemistry Royal Belgian Institute for Space Aeronomy (BIRA-IASB) Ringlaan 3 B-1180 Brussels Belgium
Global Atmosphere Watch (GAW)	International network	National Air Pollution Monitoring Network (NABEL) Empa Laboratory for Air Pollution and Environmental Technology Überlandstrasse 129 CH-8600 Dübendorf Switzerland
Global Atmosphere Watch (GAW)	International network	Halogenated greenhouse gases at Jungfrauoch Empa Laboratory for Air Pollution and Environmental Technology Überlandstrasse 129 CH-8600 Dübendorf Switzerland
Global Atmosphere Watch (GAW)	International network	Continuous measurement of stable CO ₂ isotopes at Jungfrauoch, Switzerland Empa Laboratory for Air Pollution and Environmental Technology Überlandstrasse 129 CH-8600 Dübendorf Switzerland

Institution / network	Country	Collaborating with project:
Globalview	International networks	High precision carbon dioxide and oxygen measurements at Jungfraujoch Universität Bern Physikalisches Institut Sidlerstrasse 5 CH-3012 Bern
Collaboration with the OMI, TROPOMI (S5P), MetOp GOME-2 and IASI satellite communities	International networks	Atmospheric physics and chemistry Royal Belgian Institute for Space Aeronomy (BIRA-IASB) Ringlaan 3 B-1180 Brussels, Belgium
NDACC (Network for the Detection of Atmospheric Composition Change, http://www.ndacc.org)	International network	High resolution, solar infrared Fourier Transform spectrometry. Application to the study of the Earth atmosphere University of Liège Institut d'Astrophysique et de Géophysique Allée du six Août, 19 - Bâtiment B5a B-4000 Sart Tilman (Liège, Belgium)
Obspack	International network	High precision carbon dioxide and oxygen measurements at Jungfraujoch Universität Bern Physikalisches Institut Sidlerstrasse 5 CH-3012 Bern
Satellite experiments: IASI (Infrared Atmospheric Sounding Interferometer), AURA, OMI, ENVISAT	International network	High resolution, solar infrared Fourier Transform spectrometry. Application to the study of the Earth atmosphere University of Liège Institut d'Astrophysique et de Géophysique Allée du six Août, 19 - Bâtiment B5a B-4000 Sart Tilman (Liège, Belgium)
World Meteorological Organization (WMO)	International network	Halogenated greenhouse gases at Jungfraujoch Empa Laboratory for Air Pollution and Environmental Technology Überlandstrasse 129 CH-8600 Dübendorf

Institution / network	Country	Collaborating with project:
Hebrew University of Jerusalem Assaf Zipori	Israel	Field measurements of aerosols acting as ice nucleating particles and their influence on mixed-phase clouds Swiss Federal Office of Technology, ETH Zürich Institute for Atmospheric and Climate Science Universitätsstrasse 16 CH-8092 Zürich, Switzerland
Nagoya University Solar Terrestrial Environment Laboratory Prof. Y. Matsubara Prof. Y. Muraki Dr. T. Sako Dr. S. Masuda Nagoya 464-8601, Japan	Japan	SONTEL - Solar Neutron Telescope for the identification and the study of high-energy neutrons produced in energetic eruptions at the Sun Universität Bern Physikalisches Institut Sidlerstrasse 5 CH-3012 Bern
Nagoya University	Japan	Development and scientific application of nuclear emulsion particle detectors to geological problems Institute of Geological Sciences University of Bern Baltzerstrasse 1+3 CH-3012 Bern and Laboratory for High Energy Physics University of Bern Sidlerstrasse 5 CH-3012 Bern
Korea Polar Research Institute KOPRI	Korea	Halogenated greenhouse gases at Jungfraujoch Empa Laboratory for Air Pollution and Environmental Technology Überlandstrasse 129 CH-8600 Dübendorf
Aerosol d.o.o. Grisa Mocnik and Int. Postgraduate School Jozef Stefan Ljubljana, Slovenia	Slovenia	The Global Atmosphere Watch Aerosol Program at Jungfraujoch Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen, Switzerland
Umea University & Swedish Institute of Space Physics Dr. Carol Norberg Kiruna, Sweden	Sweden	Exploration of the Jochloch cave Schweiz. Gesellschaft für Höhlenforschung Sektion Bern CH-3000 Bern

Institution / network	Country	Collaborating with project:
Astronomical Institute of the University of Bern (AIUB) Sidlerstrasse 5 CH-3012 Bern	Switzerland	Stellarium Gornergrat Center for Space and Habitability University of Bern Gesellschaftsstrasse 6 CH-3012 Bern
Astronomical Institute of the University of Bern (AIUB) Sidlerstrasse 5 CH-3012 Bern	Switzerland	Automated GNSS Network Switzerland (AGNES) Swiss Federal Office of Topography swisstopo Seftigenstrasse 264 CH-3084 Wabern
Bundesamt für Umwelt (BAFU)/ Federal Office for the Environment (FOEN)	Switzerland	National Air Pollution Monitoring Network (NABEL) Empa Laboratory for Air Pollution and Environmental Technology Ueberlandstrasse 129 CH-8600 Dübendorf
Bundesamt für Umwelt (BAFU)/ Federal Office for the Environment (FOEN)	Switzerland	SwissQuick: Emissions and imissions of atmospheric mercury in Switzerland ETH Zurich Institute for Chemical and Bioengineering Vladimir-Prelog-Weg 1 CH-8093 Zürich
Bundesamt für Umwelt (BAFU)/ Federal Office for the Environment (FOEN)	Switzerland	Halogenated greenhouse gases at Jungfrauoch Empa Laboratory for Air Pollution/Environmental Technology Ueberlandstrasse 129 CH-8600 Dübendorf
Burggemeinde Zermatt Bahnhofstrasse 53 CH-3920 Zermatt	Switzerland	Stellarium Gornergrat Center for Space and Habitability University of Bern Gesellschaftsstrasse 6 CH-3012 Bern
Eidgenössisches Institut für Metrologie METAS Lindenweg 50 CH-3084 Wabern	Switzerland	Absolute gravimetric calibration line Interlaken – Jungfrauoch Federal Office of Topography swisstopo Seftigenstrasse 264 CH-3084 Wabern

Institution / network	Country	Collaborating with project:
Empa Dr. Stephan Henne Ueberlandstrasse 129 CH-8600 Dübendorf	Switzerland	SwissQuick: Emissions and imissions of atmospheric mercury in Switzerland ETH Zurich Institute for Chemical and Bioengineering Vladimir-Prelog-Weg 1 CH-8093 Zürich
Empa Laboratory for Air Pollution/Environmental Technology Ueberlandstrasse 129 CH-8600 Dübendorf	Switzerland	High precision carbon dioxide and oxygen measurements at Jungfrauoch Universität Bern Physikalisches Institut Sidlerstrasse 5 CH-3012 Bern
Empa Laboratory for Air Pollution/Environmental Technology Ueberlandstrasse 129 CH-8600 Dübendorf	Switzerland	High resolution, solar infrared Fourier Transform spectrometry. Application to the study of the Earth atmosphere University of Liège Institut d'Astrophysique et de Géophysique Allée du six Août, 19 - Bâtiment B5a B-4000 Sart Tilman (Liège, Belgium)
Empa Laboratory for Air Pollution/Environmental Technology CH-8600 Dübendorf	Switzerland	Characterisation of biological ice nucleators at cloud height University of Basel Department of Environmental Sciences Bernoullistrasse 30 CH-4056 Basel
Empa Laboratory for Air Pollution/Environmental Technology Dr. C. Hüglin, Dr. S. Henne, Dr. S. Reimann, Dr. M. Steinbacher Ueberlandstrasse 129 CH-8600 Dübendorf	Switzerland	The Global Atmosphere Watch Aerosol Program at Jungfrauoch Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland
Empa Laboratory for Air Pollution/Environmental Technology CH-8600 Dübendorf	Switzerland	Baseline characterization of air masses using radon-222 University of Basel Department of Environmental Sciences Bernoullistrasse 30 CH-4056 Basel

Institution / network	Country	Collaborating with project:
Empa Laboratory for Air Pollution/Environmental Technology CH-8600 Dübendorf	Switzerland	Field measurements of aerosols acting as ice nucleating particles and their influence on mixed-phase clouds Swiss Federal Office of Technology, ETH Zürich Institute for Atmospheric and Climate Science Universitätsstrasse 16 CH-8092 Zürich, Switzerland
ETH Zürich Swiss Federal Institute of Technology Institute for Atmospheric and Climate Science Prof. U. Lohmann Prof. T. Peter Universitätstrasse 16 CH-8092 Zürich	Switzerland	The Global Atmosphere Watch Aerosol Program at Jungfraujoch Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland
ETH Zürich Institute for Atmospheric and Climate Science	Switzerland	Ice residual composition measurements by single particle mass spectrometry during INUIT/CLACE-JFJ 2017 Max Planck Institute for Chemistry Particle Chemistry Department Hahn-Meitner-Weg 1 D-55128 Mainz Germany
ETH Zürich Institute for Atmospheric and Climate Science	Switzerland	Measurement of clouds and secondary ice processes at Jungfraujoch Centre for Atmospheric Science University of Manchester Oxford Road Manchester, M13 9PL United Kingdom
ETH Zürich Mathematical and Physical Geodesy Robert-Gnehm-Weg 15 CH-8093 Zürich	Switzerland	Absolute gravimetric calibration line Interlaken – Jungfraujoch Federal Office of Topography swisstopo Seftigenstrasse 264 CH-3084 Wabern
ETH Zürich Departement Umweltsystem- wissenschaften D-USYS Prof. Heini Wernli Dr. Franziska Aemisegger Dr. Michael Sprenger CH-8092 Zürich	Switzerland	Tracing sources of selenium and iodine in precipitation from the high altitude sites Jungfraujoch and Pic du Midi Eawag Department Water Resources and Drinking Water, Environmental Inorganic Geochemistry Group Überlandstrasse 133 CH-8600 Dübendorf

Institution / network	Country	Collaborating with project:
Geotest Ltd. Zollikofen, Switzerland	Switzerland	Exploration of the Jochloch cave Schweiz. Gesellschaft für Höhlenforschung Sektion Bern CH-3000Bern
Geo2x SA Geophysics for Geology Oulens-sous-Echallens	Switzerland	Absolute gravimetric calibration line Interlaken – Jungfraujoch Federal Office of Topography swisstopo Seftigenstrasse 264 CH-3084 Wabern
Institut für Aerosol- und Sensortechnik, Fachhochschule Nordwestschweiz, Windisch Prof. H. Burtscher Dr. E. Weingartner Dr. M. Fierz	Switzerland	The Global Atmosphere Watch Aerosol Program at Jungfraujoch Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland
Institute of Applied Physics (IAP) University of Berne	Switzerland	Automated GNSS Network Switzerland (AGNES) Swiss Federal Office of Topography swisstopo Seftigenstrasse 264 CH-3084 Wabern
Institute of Geodesy and Photogrammetry ETH Zürich	Switzerland	Automated GNSS Network Switzerland (AGNES) Swiss Federal Office of Topography swisstopo Seftigenstrasse 264 CH-3084 Wabern
3100 Kulmhotel Gornergrat Gornergrat 3100m CH-3920 Zermatt	Switzerland	Stellarium Gornergrat Center for Space and Habitability University of Bern Gesellschaftsstrasse 6 CH-3012 Bern
MeteoSwiss	Switzerland	National Air Pollution Monitoring Network (NABEL) Empa Laboratory for Air Pollution and Environmental Technology Ueberlandstrasse 129 CH-8600 Dübendorf

Institution / network	Country	Collaborating with project:
MeteoSwiss	Switzerland	Comprehensive Radiation Flux Assessment (CRUX) Physikalisch-Meteorologisches Observatorium Davos PMOD World Radiation Center WRC Dorfstrasse 33 CH-7260 Davos Dorf
MeteoSwiss Zurich and Payerne	Switzerland	Automated GNSS Network Switzerland (AGNES) Swiss Federal Office of Topography swisstopo Seftigenstrasse 264 CH-3084 Wabern
MeteoSwiss, Payerne Office fédéral de météorologie et de climatologie MétéoSuisse Dr. D. Ruffieux Dr. A. Haefele Ch. de l'Aérologie CH-1530 Payerne	Switzerland	The Global Atmosphere Watch Aerosol Program at Jungfrauoch Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen, Switzerland
Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland	Switzerland	Characterisation of biological ice nucleators at cloud height University of Basel Department of Environmental Sciences Bernoullistrasse 30 CH-4056 Basel
Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland	Switzerland	Baseline characterization of air masses using radon-222 University of Basel Department of Environmental Sciences Bernoullistrasse 30 CH-4056 Basel
Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland	Switzerland	Composition analysis of ice particle residuals combining aerosol mass spectrometry and counterflow virtual impactor technique Leibniz Institut für Troposphärenforschung Permoserstrasse 15 D-04318 Leipzig Germany

Institution / network	Country	Collaborating with project:
Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland	Switzerland	Measurement of clouds and secondary ice processes at Jungfrauoch Centre for Atmospheric Science University of Manchester Oxford Road Manchester, M13 9PL United Kingdom
Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland	Switzerland	Field measurements of aerosols acting as ice nucleating particles and their influence on mixed-phase clouds Swiss Federal Office of Technology, ETH Zürich Institute for Atmospheric and Climate Science Universitätsstr. 16 CH-8092 Zürich, Switzerland
Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland	Switzerland	National Air Pollution Monitoring Network (NABEL) Empa Laboratory for Air Pollution and Environmental Technology Ueberlandstrasse 129 CH-8600 Dübendorf
Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland	Switzerland	Characterization of ice nucleating aerosol particles by single particle mass spectroscopy and filter sampling, INUIT-CLACE-2017 Institute of Meteorology and Climate Research, Karlsruhe Institute of Technology Hermann-von-Helmholtz-Platz1 D-76344 Eggenstein-Leopoldshafen Germany
Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland	Switzerland	Ice residual composition measurements by single particle mass spectrometry during INUIT/CLACE-JFJ 2017 Max Planck Institute for Chemistry Particle Chemistry Department Hahn-Meitner-Weg 1 D-55128 Mainz Germany

Institution / network	Country	Collaborating with project:
Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland	Switzerland	Investigation of free tropospheric nucleation Institute for Atmospheric and Earth System Research University of Helsinki Gustaf Hällströmin katu 2a FI-00560 Helsinki Finland
PERMOS (Permafrost Monitoring Switzerland) http://www.permos.ch/	Switzerland	Long-term permafrost monitoring for PERMOS WSL Institute for Snow and Avalanche Research SLF Flüelastrasse 11 CH-7260 Davos Dorf, Switzerland
Studiengesellschaft Mont Soleil Les Brenet	Switzerland	Long-term study on the efficiency of photovoltaic at alpine sites Bern University of Applied Sciences BFH, Dept. Engineering and Information Technology (EIT) Photovoltaic Laboratory Jlcoweg 1 CH-3400 Burgdorf
Study of solar photometry (aerosol optical depth) and long-wave infrared radiative forcing in collaboration with the Physikalisch-Meteorologisches Observatorium Davos (PMOD), World Radiation Center (WRC) Dorfstrasse 33 CH-7260 Davos Dorf	Switzerland	Global Atmosphere Watch Radiation Measurements Federal Office of Meteorology and climatology MeteoSwiss Station Aérologique 1 Ch. de l'Aérologie CH-1530 Payerne
Swiss GCOS office	Switzerland	High precision carbon dioxide and oxygen measurements at Jungfraujoeh Universität Bern Physikalisches Institut Klima- und Umweltphysik Sidlerstrasse 5 CH-3012 Bern
Swiss Glacier Monitoring Network (GLAMOS) http://www.glamos.ch	Switzerland	Glaciological investigations on the Grosser Aletschgletscher ETH Zürich Versuchsanstalt für Wasserbau, Hydrologie und Glaziologie (VAW) Hönggerbergring 26 CH-8093 Zürich

Institution / network	Country	Collaborating with project:
Swiss Institute of Speleology and Karst-Research Dr. Philipp Häuselmann	Switzerland	Exploration of the Jochloch cave Schweiz. Gesellschaft für Höhlenforschung Sektion Bern CH-3000 Bern
Universität Basel Institut für Umweltgeowissenschaften Dr. Franz Conen Bernoullistrasse 30 CH-4056 Basel	Switzerland	The Global Atmosphere Watch Aerosol Program at Jungfrauoch Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland
University of Bern Physics Institute Climate and Environmental Physics Sidlerstrasse 5 CH-3012 Bern	Switzerland	National Air Pollution Monitoring Network (NABEL) Empa Laboratory for Air Pollution and Environmental Technology Ueberlandstrasse 129 CH-8600 Duebendorf
University of Bern Physics Institute Climate and Environmental Physics Prof. M. Leuenberger Sidlerstrasse 5 CH-3012 Bern	Switzerland	The Global Atmosphere Watch Aerosol Program at Jungfrauoch Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland
University of Bern Physics Institute Climate and Environmental Physics Sidlerstrasse 5 CH-3012 Bern	Switzerland	Continuous measurement of stable CO ₂ isotopes at Jungfrauoch, Switzerland Empa Laboratory for Air Pollution and Environmental Technology Überlandstrasse 129 CH-8600 Dübendorf
University of Bern Physics Institute Climate and Environmental Physics Sidlerstrasse 5 CH-3012 Bern	Switzerland	Flask comparison on Jungfrauoch Max Planck Institut für Biogeochemie Hans Knöll Str. 10 D-007745 Jena
Universität Bern Physikalisches Institut Klima- und Umweltphysik Dr. Roland Purtschert Sidlerstrasse 5 CH-3012 Bern	Switzerland	85Kr Activity Determination in Tropospheric Air Bundesamt für Strahlenschutz Rosastrasse 9 D-79098 Freiburg

Institution / network	Country	Collaborating with project:
University of Geneva Geneva Observatory Astronomy Department 51, Chemin des Maillettes CH-1290 Sauverny	Switzerland	Stellarium Gornergrat Center for Space and Habitability University of Bern Gesellschaftsstrasse 6 CH-3012 Bern
Université de Neuchâtel Centre d'Hydrogéologie et de Géothermie (CHYN)	Switzerland	Absolute gravimetric calibration line Interlaken – Jungfrauoch Federal Office of Topography swisstopo Seftigenstrasse 264 CH-3084 Wabern
Université de Lausanne Institut des sciences de la Terre	Switzerland	Absolute gravimetric calibration line Interlaken – Jungfrauoch Federal Office of Topography swisstopo Seftigenstrasse 264 CH-3084 Wabern
Centre for Isotope Research CIO University of Groningen The Netherlands	The Netherlands	High precision carbon dioxide and oxygen measurements at Jungfrauoch Universität Bern Physikalisches Institut Sidlerstrasse 5 CH-3012 Bern
Centre for Isotope Research CIO University of Groningen The Netherlands	The Netherlands	Flask comparison on Jungfrauoch Max Planck Institut für Biogeochemie Hans Knöll Str. 10 D-007745 Jena
Abant Izzet Baysal University Department of Physics Experimental Nuclear and High Energy Group Prof. Dr. Haluk Denizli Bolu / Turkey	Turkey	ϕ Dependence study of TAUWER Prototype detector and correlation study of cosmic ray rate with solar activity Giresun University Department of Electric and Electronics Engineering 28200 Giresun, Turkey and University of Rome La Sapienza Departement of Physics Piazza A. Moro 5 I-00185 Rome
Royal Holloway University of London Prof. Euan Nisbet	UK	Isotopic composition of N ₂ O at Jungfrauoch High Altitude Station Empa Laboratory for Air Pollution and Environmental Technology Überlandstrasse 129 CH-8600 Dübendorf

Institution / network	Country	Collaborating with project:
University of Bristol	UK	Halogenated greenhouse gases at Jungfraujoch Empa Laboratory for Air Pollution/ Environmental Technology Überlandstrasse 129 CH-8600 Dübendorf
University of Leeds School of Earth and Environment Martin Chipperfield Leeds, LS2 9JT United Kingdom	UK	Atmospheric physics and chemistry Royal Belgian Institute for Space Aeronomy (BIRA-IASB) Ringlaan 3 B-1180 Brussels Belgium
University of Leeds	UK	High resolution, solar infrared Fourier Transform spectrometry. Application to the study of the Earth atmosphere University of Liège Institut d'Astrophysique et de Géophysique Allée du six Août, 19 - Bâtiment B5a B-4000 Sart Tilman (Liège, Belgium)
University of Manchester School of Earth, Atmospheric and Environmental Sciences (SEAES) Prof. H. Coe Prof. T. Choularton Manchester, UK	UK	The Global Atmosphere Watch Aerosol Program at Jungfraujoch Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland
University of Manchester School of Earth, Atmospheric and Environmental Sciences (SEAES) Manchester, UK	UK	Ice residual composition measurements by single particle mass spectrometry during INUIT/CLACE-JFJ 2017 Max Planck Institute for Chemistry Particle Chemistry Department Hahn-Meitner-Weg 1 D-55128 Mainz Germany
University of Manchester School of Earth, Atmospheric and Environmental Sciences (SEAES) Manchester, UK	UK	Composition analysis of ice particle residuals combining aerosol mass spectrometry and counterflow virtual impactor technique Leibniz Institut für Troposphärenforschung Permoserstrasse 15 D-04318 Leipzig Germany

Institution / network	Country	Collaborating with project:
NOAA Dr. E. Andrews Boulder, USA	USA	<p>The Global Atmosphere Watch Aerosol Program at Jungfraujoch</p> <p>Paul Scherrer Institute Laboratory of Atmospheric Chemistry CH-5232 Villigen Switzerland</p>
NASA JPL	USA	<p>High resolution, solar infrared Fourier Transform spectrometry. Application to the study of the Earth atmosphere</p> <p>University of Liège Institut d'Astrophysique et de Géophysique Allée du six Août, 19 - Bâtiment B5a B-4000 Sart Tilman (Liège, Belgium)</p>