



Martin Schultz

Date of birth: 13 May 1964 | **Nationality:** German | **Gender:** Male | m.schultz@fz-juelich.de |

Forschungszentrum Jülich GmbH, 52425, Jülich, Germany

● WORK EXPERIENCE

1 JUL 2017 – CURRENT – Jülich, Germany

RESEARCHER AND TEAM LEADER – FORSCHUNGSZENTRUM JÜLICH GMBH

Leader of a research group on Earth System Data Exploration (20 team members) in the Division of Federated Systems and Data of the Jülich Supercomputing Centre; development of AI methods for the analysis of air quality and weather data; development of web services and performant data infrastructures for Earth System Data, including maintenance and development of the observation data base of the international Tropospheric Ozone Assessment Report; coordination of activities on technical developments to establish exascale readiness of Earth System Models

1 APR 2006 – 30 JUN 2017 – Jülich, Germany

RESEARCHER AND TEAM LEADER – FORSCHUNGSZENTRUM JÜLICH GMBH

Team leader of "Atmospheric Chemistry Modelling" group at the Institute of Chemistry and Dynamics of the Geosphere (ICG-2); development of a coupled chemistry-climate model, including technical coupling concepts; coordinator of 1 EU projects and 5 EU project work packages; development of an observation database for the international Tropospheric Ozone Assessment Report; development of data repository and analysis platform for the first model inter-comparison project of the UNECE Task Force on Hemispheric Transport of Air Pollution

1 AUG 1999 – 31 MAR 2006 – Hamburg, Germany

RESEARCHER AND GROUP LEADER – MAX PLANCK INSTITUTE FOR METEOROLOGY

Leader of the "Aerosols, Chemistry and Climate" research group; development of a coupled chemistry climate model; coordination of EU project RETRO

1 JAN 1997 – 31 JUL 1999 – Cambridge, MA, United States

POSTDOCTORAL RESEARCHER – HARVARD UNIVERSITY

Analysis of aircraft measurements of atmospheric composition; development of analysis software for observations and model output; contribution to the development of an atmospheric chemistry transport model

1 SEP 1995 – 31 DEC 1996 – Jülich, Germany

POSTDOCTORAL RESEARCHER – FORSCHUNGSZENTRUM JÜLICH GMBH

Participation in measurement field campaigns on atmospheric composition; data analysis; development of analysis software

● EDUCATION AND TRAINING

23 JUN 2021 – 24 JUN 2021

FIT FOR LEADERSHIP – Forschungszentrum Jülich with Schiel Consulting GmbH

5 MAR 2018 – 8 MAR 2018

COURSE SCALABLE AND PARALLEL DEEP LEARNING – Jülich Supercomputing Centre

● LANGUAGE SKILLS

Mother tongue(s): GERMAN

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C2	C2	C2	C2
FRENCH	B2	B2	B1	B1	B1
ITALIAN	A2	A2	A2	A2	A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● DIGITAL SKILLS

Programming

High Performance Computing | Python | FORTRAN | Object-Oriented Programming | Git | YAML | Linux

Web service development

Javascript | HTML | CSS | JSON | RESTful api | XML | OGC standards

Data management

SQL | netCDF | HDF5

Other

Microsoft Office | Latex | Photoshop

● MANAGEMENT AND LEADERSHIP SKILLS

Co-chair of Tropospheric Ozone Assessment Report, phase II (since Dec 2019)

Co-lead of an 11-person steering committee and organisation of an international voluntary activity of > 200 scientists; member of TOAR-I steering committee (2014-2019)

<https://igacproject.org/activities/TOAR/TOAR-II>

Chair of Scientific Advisory Group on reactive gases at World Meteorological Organisation (2011-2018)

Leading an international expert group of 16 people, major contributions to GAW Implementation Plan 2016-2023; member of SAG since 2009

https://library.wmo.int/doc_num.php?explnum_id=3395

Deputy topic spokesperson of Helmholtz research area "Information", program 1 (since 2021)

Contributions to strategic program development and implementation plan; member of extended management board

Editor of Earth System Science Data journal (since 2020)

managing of manuscripts on meteorological data and AI
https://www.earth-system-science-data.net/editorial_board.html

Project coordinator

Currently PI of ERC grant "IntelliAQ" (2018-2023), BMBF project DeepRain (2018-2022), Helmholtz Association Pilot Lab Exascale Earth System Modelling (2019-2022); co-ordinator of exascale ESM activities at the Jülich Supercomputing Centre (since 2020); manager of 20-member research group; formerly project or work package coordinator of 7 European projects (including ECMWF-led GEMS, MACC, MACC-II, MACC-III and EUMETSAT FREEVAL)

● ORGANISATIONAL SKILLS

Organisation of multi-author publications

Many of my journal publications (see <http://orcid.org/0000-0003-3455-774X>) are multi-author papers. Specifically, Schultz et al. (2017) on the TOAR database included 97 co-authors.

Organisation of conferences and workshops

I have organised many national and international meetings. For example a workshop on "Extreme Data" in 2018 (https://www.fz-juelich.de/ias/jsc/EN/Expertise/Workshops/Conferences/Extreme-Data-2018/_node.html) and several meetings of TOAR and the GAW scientific advisory group. From 2005-2009 I was member of the scientific advisory board and programme committee of the European Geophysical Union.