

CURRICULUM VITAE

PROF. GIANLUCA REDAELLI received a Laurea degree (cum Laude) in Physics from the University of L'Aquila, Italy (1991) and a Ph. D. degree in Geophysics from the University of Genoa, Italy (1995). He joined the Atmospheric Physics Group of the University of L'Aquila in 1991 and he is now in charge of the Climatological Modelling branch of the Centre of Excellence for the integration of remote sensing and numerical modelling for the forecast of severe weather (CETEMPS) of that University. He is Associate Professor at the Department of Physical and Chemical Sciences of the University of L'Aquila in the GEO12 SSD (Oceanography and Physics of the Atmosphere).

RESEARCH. His research interests centre on numerical modelling of chemical and dynamical processes in the atmosphere. Research have focused on developing and using global models of the stratosphere based on lagrangian approaches and three-dimensional atmospheric chemical-transport models (CTMs) containing a detailed description of the chemical processes of the stratosphere. He has expertise in using General Circulation Models to study the impact on global climate of the trend in oceanic surface temperatures and Regional Climate Models to investigate regional impact of climate change and produce seasonal forecasts. Research activities include also participation to various international field campaigns and collaborations with Italian and foreign University and Research Centres (University of Oxford, NASA, University of Cambridge, Finnish Meteorological Institute, Catholic University of Argentina etc.).

EXPERIENCE. In 1992 he was at FMI in Finland, for to the EU arctic measurement campaign EASOE and later that year he was Visiting Scientist at the Atmospheric Chemistry and Dynamics Branch of the NASA/Goddard Space Flight Centre (USA). From 1993 to 1994 he was private consultant first for TELESPAZIO and then for the Department of Physics of the University of L'Aquila. In 1995 he was back at NASA/GSFC as a Research Scientist. From 1996 to 1998 he was again private consultant for the Department of Physics of the University of L'Aquila. From 2000 to 2002 he was Research fellow of the National Institute for the Physics of Matter (INFN). In 2002 he represented Italy at the WMO/UNEP Meeting of the Ozone Research Managers of the Parties to the Vienna Convention for the Protection of the Ozone Layer, in Geneva. In 2002 he became Assistant Professor at the Physics department of the University of L'Aquila, where he's now working as Associate Professor, since 2015.

PUBLICATIONS. Prof. Redaelli has published more than 50 scientific papers on refereed international journals and is a reviewer for Journal of Geophysical Research (AGU), Geophysical Research Letters (AGU) and Journal of Climate (AMS).

ORGANIZATION. Prof. Redaelli has been in the organizing committee of the World Climatic Research Program (WRCP) Special Workshop on "Climatic Effects of Ozone Depletion in the Southern Hemisphere" in 2013. He is in charge of the secondary school teacher training system for the university of L'Aquila.

TEACHING. Prof. Redaelli has been teaching at the University of L'Aquila since 2001. His teaching activity includes courses on General Physics, Physics of the Atmosphere and of the Ocean, Atmospheric Modelling and Climate Changes, Climate Modelling. He's been tutor of undergraduate, graduate and PHD students.

PROJECTS. Since 1991 prof. Redaelli has been participating to several international project, often with coordination dues. Those includes: ESAOE (EU), CMP/UARS (NASA), SPADE (NASA), MOANA (EU), APE (EU), SAONAS (EU), APE/THESEO (EU), APE/GAIA (CE), ENVISAT CAL/VAL (ESA), ENVISAT CAL/VAL (ESA), APE/ENVISAT (ASI), APE/INFRA (CE), Antarctic O3 (MAE), STAGE (PNRA), Antarctic O3 (MAE), SCOUT-O3 (CE), QUITSAT (ASI), AIACE (PNRA),

HONOURS. Prof. Redaelli was the recipient of the NASA Group Achievement Award, UARS Team, 2006.

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RESEARCHGATE <https://www.researchgate.net/profile/Gianluca-Redaelli>

SELECTED PUBLICATIONS

1. L. SANGELANTONI, A. RICCHI, R. FERRETTI AND G. REDAELLI (2021) Dynamical Downscaling in Seasonal Climate Forecasts: Comparison between RegCM- and WRF-Based Approaches, *Atmosphere*, 12(6), 757, DOI:10.3390/atmos12060757
2. R. FERRETTI, LOMBARDI A., TOMASSETTI B., SANGELANTONI L., COLAIUDA V., MAZZARELLA V., MAIELLO I., VERDECCHIA M. AND REDAELLI G. (2020) A meteorological–hydrological regional ensemble forecast for an early-warning system over small Apennine catchments in Central Italy, *Hydrology and Earth System Sciences*, 24(6), 3135-3156, DOI:10.5194/hess-24-3135-2020
3. L. SANGELANTONI, B. TOMASSETTI, V. COLAIUDA, A. LOMBARDI, M. VERDECCHIA, R. FERRETTI AND G. REDAELLI (2019) On the Use of Original and Bias-Corrected Climate Simulations in Regional-Scale Hydrological Scenarios in the Mediterranean Basin, *Atmosphere*, 10(12), 799, DOI:10.3390/atmos10120799
4. L. SANGELANTONI, R. FERRETTI AND G. REDAELLI (2019) Toward a Regional-Scale Seasonal Climate Prediction System Over Central Italy based on Dynamical Downscaling, *Climate*, 7(10), 120, DOI:10.3390/cli7100120
5. M. REGI, M. DE LAURETIS, G. REDAELLI, P. FRANZIA (2018) ULF Geomagnetic Activity Signatures in the Atmospheric Parameters in Antarctica, *Antarctica-A Key to Global Change*, DOI:10.5772/intechopen.81106
6. M. REGI, G. REDAELLI, P. FRANZIA, M. DE LAURETIS (2017) ULF geomagnetic activity effects on tropospheric temperature, specific humidity, and cloud cover in Antarctica, during 2003-2010, *JOURNAL OF GEOPHYSICAL RESEARCH*, DOI: 10.1002/2017JD027107
7. M. REGI, M. DE LAURETIS, G. REDAELLI, P. FRANZIA (2016) ULF geomagnetic and polar cap potential signatures in the temperature and zonal wind re-analysis data in Antarctica, *JOURNAL OF GEOPHYSICAL RESEARCH*, DOI: 10.1002/2015JA022104
8. S.S. LEROY, G. REDAELLI, B. GRASSI (2014) Prioritizing Data for Improving the Multi-decadal Predictive Capability of Atmospheric Models, *JOURNAL OF CLIMATE*, doi:10.1175/jcli-d-14-00444.1
9. P.O. CANZIANI, A. O'NEILL, R. SCHOFIELD, M. RAPHAEL, G.J. MARSHALL, G. REDAELLI (2014). World Climate Research Program Special Workshop on Climatic Effects of Ozone Depletion in the Southern Hemisphere. *BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY*, DOI: 10.1175/BAMS-D-13-00143.1
10. GRASSI B., REDAELLI G, G. VISCONTI (2013). Arctic sea-ice reduction and extreme climate events over the Mediterranean region. *JOURNAL OF CLIMATE*, vol. 26, p. 10101-10110, ISSN: 0894-8755, DOI: 10.1175/JCLI-D-12-00697.1
11. GRASSI B., REDAELLI G, P. O. CANZIANI, G. VISCONTI (2012). Effects of the PDO phase on the tropical belt width. *JOURNAL OF CLIMATE*, vol. 25, p. 3282-3290, ISSN: 0894-8755, DOI: 10.1175/JCLI-D-11-00244.1