

Wilfried Schröder, Ph.D., geophysicist, physics, Scientific Leader Geophysical Station Rönnebeck,

Historical Works e.g.

On Einstein and Göttingen Academy

Emil Wiechert and seismology and Göttingen Academy

Correspondence between Lorentz, Sommerfeld and Wiechert

Correspondence between Prof. Hanno Beck (researcher on Humboldt) and Prof. Hans Ertel

Edition of the work of Hans Ertel, founder of geophysical hydrodynamics

Edition and research on the beginning of the upper atmosphere research, e.g. Jesse, Archenhold and Foerster

History of physics at the Academy of Göttingen

Jiessling and atmospheric physics (NR Royal Society)

Krakatoa Event

History and development of Auroral Physics (Book The aurora, Darmstadt 1984, Bremen 2000)

Development of noctilucent cloud research, 1975, book and some more editions

Noctilucent clouds, with Prof. Gadsden

The Einstein-Laue discussion (BJHS) with Prof. Treder

Einstein and the astronomers of Potsdam, with Prof. Treder

Hans Ertel and cosmology, with Prof. Treder

G. v. Neumayer and development of geomagnetism

Scientific secretary Society for the history of geophysics and cosmical physics

Editor of "Contributions of the society..." and "Quellentexte"

Scientific Convener of 15 international conferences (**Interdivisional Commission of History**) of the International association of geomagnetism and aeronomy (of IUGG) between 1981-2005

co-convener Humboldt Symposium 2007 and 2009

Chairman or Co-Chairman of the "**Interdivisional Commission of History**" of the International

Association of Geomagnetism and Aeronomy between 1983-2005

Convener of 2 international conferences of European Geophysical Union

Member Max Planck Gesellschaft

German Physical Society

American Geophysical Union

The Royal society of S.A.

INHIGEO

Leibniz Sozietät (Academy)

Tensor-Society

Fellow Royal Meteorological Society

45 Books

and

more than 350 scientific papers in all international leading journals, Nature, Science, Archive. Archives,

NTM, BSHS, EOS, Acta geophysics,

Meteorologische Rundschau, Bulletin american meteorological society, Notes and Records of the Royal Society, Sudhoffs Archiv etc.

Wilfried Schröder, PhD, (member of AGU since 1971), Geophysical Institute and Station and Society of History of Geophysics, Hechelstrasse 8, D-28777 Bremen, Germany.

Scientific Leader Geophysical Institute and Station, Rönnebeck, Germany. During past decades (1965-1990) visiting scientists in Sweden, UK, Italy and Austria. Working in Solar Physics, Solar-terrestrial relationships and Geomagnetism, also Noctilucent clouds and mesospheric circulation. During the years he has established a Network for Auroral observations and of Noctilucent clouds for Germany, and is sampling the dates and collect they. He worked largely on the history of physics, especially Göttingen physics, by the work of Emil Wiechert, and his relations to Arnold Sommerfeld and H. Lorentz..He is member of the AGU, The Royal Society SA, the German Physical Society , Fellow of the Royal Meteorological Society and Tensor-Society, and Max-Planck-Gesellschaft.

He worked for many years in international conferences of all parts, including solar-terrestrial physics during IUGG and EGU.

He was a editorial member of Earth Science History and is now Editor of Contributions of History of Geophysics and Cosmical Physics. He is scientific secretary of the Society for the History of Geophysics and Cosmical Physics.

He was reviewer for different scientific bodies and the main international scientific journals, including JGR.

He received award and support from Göttingen Academy of Sciences.

Dr Schröder has been published during the last decades more than 300 scientific papers in all leading international journals, e.g. Nature, JGR, EOS, Bulletin American Meteorological Society, Foundations of Physics, Tensor, Weather, Q. J. Royal Met. Society, Comp rendus Academ. Franc., Planetary and Space sciences, J atmospheric-solar terrestrial physics, Zeitschrift für Naturforschung, Archiv. Hist. Sciences, Gesnerus, Biographical Notes of Royal Society, etc etc.

He has published 45 scientific books, including editor of many conference books. Examples:

Development phases of Noctilucent clouds, 1975 (see the full review by Prof. Landsberg in EOS 1976)

The Aurora Borealis, 1984 (see the full review by Prof. Asgeir Brekke in EOS, 1985)

Noctilucent clouds (with Michael Gadsden), reviews in all leading journals 1989ff

Catalogue of Aurora Borealis, 1999

Noctilucent clouds, 1998

Collected papers of Hans Ertel, 1991-1006, 6 volumes (partly reviewed in Q. J. Royal Met. Society)

The ether in Physics, 2000

Emil Wiechert, 2000

Einstein and Geophysics, 2005

Sunspots and Auroras, 1997

Case studies of Spörer, Maunder and Dalton Minima, 2005

The Aurora in Time, 2000 (full review in Bull. AMS by Prof. Schlegel, 2001)

etc etc.

History of Solar and Space Physics, Books 1982-2005.

His papers in scientific journals dealt with:

Case studies of auroras, e.g. March 1960, July 1959, September 1958 (Gerlands Beitr. Geophysik, Beitr. Phys Atmosphere Auroras and low magnetic activity in middle and low latitudes (Gerl. Beitr. Geophys, JGR 1972)

Auroral Catalogue for 1882-1956 (Gerl Beitr. Geophys. 1967, see also JGR 1972 and 1964.

Study of the aurora of 1716, March, 2000 (See also EOS, 2005)

Relationship of solar flares and auroras in middle latitudes
Morphology of Auroras, 1960-1970 (short report in JGR, 1972)
The Maunder Minimum, 1979ff,(JASTP, J Geom. Geoelect.,
Acad. Franc., Acta Geophysica, Weather.)
The Spörer Minimum, 1994, Ann. Geophys
The Dalton Minimum, 2003, Ann Geophys.
Outer belts and auroral, Gerl Beitr Geophys
The geographical distribution of visual auroras in the Northern and
Southern hemispheres, see short in JGR report 1972, full in
Gerlands Beitr Geophys)
History of Geomagnetism (see his report on aurora in EOS, 1981)
Long and short term variability of SUN and auroras
Emil Wiechert and H A Lorentz
Emil Wiechert and Arnold Sommerfeld
The Göttingen academy of sciences and physics
History of Aurora Borealis research (incl. a book)
Biography of Otto Jesse, Wilhelm Foerster, Alfred Wegener, Hans
Ertel etc.
Developmental phases of Noctilucent clouds research
Noctilucent clouds since 1885

Noctilucent clouds:

General theory, 1964-2006
Photographic and visual studies of noctilucent clouds, (see also his
reports in EOS, 1980ff. Otto Jesse etc.
Proof of the relation of mesospheric transition and period of
noctilucent clouds in the Northern hemisphere, 1968ff (see review
in Bull AMS 1999)
Relationship mesospheric circulation and noctilucent clouds
height determinations of noctilucent clouds, 1995ff (see review in
Bull AMS 1998)
Wave forms of noctilucent clouds, 1968ff
On the theory of seasonal frequency of noctilucent clouds, 2006
Auroras and noctilucent clouds, 1964 and 2004
Catalogue of German observations of noctilucent clouds 1885-
1957 (Z Meteorology)
Study on the earliest sightings of noctilucent clouds and Krakatoa
(Bull AMS, 2003)

In general Schröder has found

the existence of solar cycle for the times of Spörer, Maunder and Dalton Minima from his long-term study of old auroras. Shortly after Eddy's most interesting study of Maunder Minimum, Schröder has showed that this conclusions were in error because he had overlooked most of the auroral data gathered between 1645-1715. Schröder was the first to show from auroral data that the solar cycle was active during the so-called Maunder Minimum, also he gave proof for the existence during Spörer and Dalton minimum from his long term and accurate auroral studies in thousand of old sources.

Prof. Sydney Chapman has gratulate Schröder for his work in auroral physics, including the fundamental catalogues of old data from Germany and Europe, and edition of old auroral books. Schröder demonstrated the existence of auroras during low Kp-values in middle and low latitudes, and he showed the relationship between different flares and auroras.

He also present a example of the morphological structure of auroras in middle and low latitudes which was not known before.

Schröder's work in aeronomy and noctilucent clouds was a pioneering work. He was one of the first who construct a general theory of noctilucent clouds and relation with the transition of mesosphere. His studies in morphology, climatology and height data confirms and gave the NLC research a basement. His book with Michael Gadsden and his book in noctilucent clouds (1975, 1998, 2008) are pioneering works.

Fundamental wok has been done in history of physics on the relationship between Emil Wiechert, Arnold Sommerfeld and Hendrik Lorentz. Parts of the correspondence between these has been published in Archives.

A fundamental source book has been published on the “ther problem” with papers by Einstein, Wiechert and G. Mie. Biographic Notes and Books on Emil Wiechert, Hans Ertel, Alfred Wegener, Otto Jesse, Wilhelm Foerster, Hermann Fritz et. al. Catalogues of Noctilucent clouds and Auroral observations