The publication presents papers collected and published to celebrate Karl-Heinrich Wiederkehr's 75th birthday. As G.P. Gregori, the President of the Interdivisional Commission of International Association of Geomagnetism and Aeronomy (IAGA), and F.M. Neubauer, the President of the German Geophysical Society point out in their introductory, Dr. Wiederkehr is well known among physicists, geophysicists and among all other scientists studying natural phenomena. They appreciate him as a historian of science who has been studying not only natural phenomena, but also the people of science pioneering research in several branches of natural sciences. In the list of his publications, concluding this volume, we find biographies of such luminaries as C.F. Gauss, W. Weber, C.S. Laplace, J.C. Maxwell and several others.

The papers of the Festschrift have different styles of presenting a specific subject, most of the papers are written in German, the rest in English, and just one in French. They cover a wide range of topics such as mathematical physics, physics, astronomy, geophysics, meteorology, crystallography and chemistry. With regard to the style of presentation, the volume contains papers developing certain tools of mathematics and mathematical physics that can be applied to an advantage in earth sciences. This category includes the paper "Quantum gravity in real space-time" by Vezo Sabbata, or the study in German by Thomas Schalk "Kosmos und Planck - Zur Algebraisierung physikalischer Probleme", or the study by B.S.C. Saint-Guily on "Trkalian fields and gyroscopic waves in rotating fluids", referring to the original paper published in 1919 by V. Trkal who later became professor of theoretical physics at the Charles University in Prague.

In the other group, there are papers summing up the results of investigations of specific problems, or presenting surveys of research conducted in the field of earth sciences in a particular country, or in a certain region. The results of studying the asthenosphere as one of the most important discontinuities in the upper mantle are addressed in the paper "Mantle diapir - mantle plumes in the Pannonian Basin" by A. Adam and "Data on early magnetic variation in the Carpathian Basin" by L. Bartha.

Research activities in Nigeria are reported by E.A. Oni in the contribution "Pioneering physics, geodesy and geophysics, Research in Nigeria" covering ionospheric physics and radio-wave propagation, geomagnetism - geomagnetic observatory and paleomagnetism, solid earth and space physics, atmospheric physics, meteorology and environmental radiation monitoring.

Readers of the volume may also be interested in the paper written in German by Theodor Landscheid under the title "Klimavorhersage mit astronomischen Mitteln?" (Climate forecasting using astronomical tools?). Long-term climatic changes are analyzed in relation to certain astronomical phenomena. Specifically, intervals of ordered and chaotic motion of the Sun round the barycentre, or centre of the mass of the solar system are shown, correlation with solar activity cycles is investigated and the possible influence of the solar system on climatic processes is sought.

Problems of global change are addressed in the case studies "Historical data and global change" by Giovanni P. Gregori. Historical data are shown to be very useful for recent environmental research, specifically for covering a time span of several thousand years, and for filling the gap between the instrumental period of research and the geological time scale. Ways of how the data can be useful are shown, provided they are carefully handled.

There is a further group of interesting studies dealing with the history of observatories, presenting biographies of leading personalities in mathematics, physics and earth sciences, showing historical instruments and commenting events that opened new fields of research in earth science. These contributions are usually illustrated by copies of handwritten records of important events (the first astronomical observation at Ondřejov), or parts of original manuscripts of scientific papers, by contemporary photographs of leading scientists (Laplace, Wiechert), original drawings of instruments (vertical seismometer) and several other interesting pictures.
To summarize, this volume is really interesting reading and I recommend it to anyone who is interested in finding out not only what has been learned in specific fields of research, but also about people behind the results, about their personal motivations at critical points of research where progress could only be made with very great effort, skill and hard work.

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