An interview

Bernd Wegner was born in Berlin in 1942. He attended both the Technical and the Free Universities. E. Kähler, K. Leichtweiß and W. Haack were among his teachers. In 1970 he became assistant professor in the Technical University of Berlin having been promoted to professor in 1972.

Topology, Differential Geometry and General Relativity are some of the areas where his interests lie and during his career he has supervised many research students.

In 1974 Bernd Wegner was appointed Editor-inchief of Zentralblatt für Mathematik and in 1993 he became Managing Editor for Beiträge zur Algebra und Geometrie/ Contributions to Algebra and Geometry. He is also responsible for the scientific supervision of the EMIS information service provided by the EMS.

Last but not least he belongs to the CIM Scientific Council.

'The topic has been indicated to me by Tom Willmore (Durham) during a meeting at Oberwolfach. I began to work on the subject quite independently and presented my first results to K. Leichtweiß. He was convinced of my achievements and agreed to give me the necessary guidance for the preparation of my thesis.'

Have your mathematical interests changed much over the years?

'My mathematical interests have spread out to several areas in geometry though I permanently return to subjects related to transnormality and constant width. Some of my publications deal with the main streams in submanifold theory, others concern topological considerations and in recent times I became more and more interested in problems from discrete geometry. One major topic which kept me busy all the time was Lorentzian geometry and its applications to cosmology.



We shall start with your mathematical research. An important part of your work concerns the study of *Transnormal Submanifolds*. *Transnormality* was introduced in the 60's by S. A. Robertson. How did you come about being interested in such a topic? Who was your thesis advisor? But as a principle, I have reserved this field exclusively for some of my research students. Several interesting results have been developed and published by them in this field under my advisorship.'

Göttingen is a great moment in the history of ger-

man mathematics which, unfortunately, was destroyed "...literally in a day, by Hitler.", to quote words of Constance Reid. Would you like to comment on the situation of mathematics these days in Germany? Is it possible to compare the situation today with the past great times?

'I have no special relation to what is called german mathematics and the tradition related to the mathematicians working in Göttingen during the first half of this century. It is obvious that these mathematicians had a lot of influence on the further development of mathematics. The development of german mathematics during the Nazi regime is a subject of several publications in the history of mathematics, as it will be with other national groups of mathematicians under a totalitarian government. This cannot be described in a honest manner by a short comment. But such developments show drastically that mathematicians (as other scientists) cannot evade from having an impact on politics and from being a political individuum.

Certainly the influence of german mathematicians has become lower nowadays, and in view of the unification of Europe it will not make sense to try to improve this again. Mathematicians have the possibilities to enter a world-wide cooperation easily, and they do it frequently. The concentration and coordination of regional research activities will be an important task of local mathematical societies, but to represent and propagate the achievements of European mathematicians likewise it is done by the AMS for the North-American can only be done successfully by the European Mathematical Society EMS.'

The next ICM is to take place in Berlin, at your university. Have you been involved in the organisation? Suppose you would have to help someone to decide whether or not to attend the congress. How would you convince him to go to Berlin?

'Being now editor-in-chief of Zentralblatt für Mathematik for more than 20 years I plan to organize some events related to documentation and information in mathematics. This will include the update of the mathematics classification MSC 1991 (which was formerly the AMS classification) and the discussion of the production of databases and electronic versions for old mathematical literature.

I think that such a congress like the ICM is a big social event in mathematics. You will have represented most of the current research activities in overview lectures, and also other mathematical activities find a recognition at such a congress like nowhere else. Last but not least, Berlin is a pleasant place in August and the offer of interesting events for tourists has increased a lot after the unification. Hence this should be sufficient motivation to take part in the ICM.'

You are now a member of the CIM Scientific Coun-

cil. From your viewpoint what is the future of such an institution in a small country like Portugal?

'An institution like CIM is very important for coordinating and facilitating the research activities of the Portuguese mathematicians. It also may have impact on some part of Spain. The mathematical community representing the customers of CIM will be just suitable for CIM to run its activities without a very big budget, but with a high efficiency concerning the exchange of knowledge. There is a chance that every Portuguese mathematician may have a benefit from this institution, and that not only some privileged will have access to the offers of CIM. Assuming this as the future policy of CIM I think that this institution will get a good recognition and support from the Portuguese mathemaical community.'

You do a lot of work for Springer Verlag, namely you are the Editor-in-chief for *Zentralblatt für Mathematik*. Computer facilities are already having a great effect on publication. Do you think the traditional mathematical journals and textbooks will survive? Will electronic versions take over?

'Electronic publications in mathematics are an important addition to the literature in mathematics. They provide a lot of additional facilities which cannot be met in conventional publications on paper. But this development is a rather new one, and nobody knows definitely what the standards and the underlying economics will be for electronic publications. Most offers are in an experimental state with the exception of literature databases which from the side of Zentralblatt have been offered since 1978 already. But also here the technical background is changing permanently.

Those who have dealt with electronic publications already for some time did not give up to use print publications simultaneously. My personal experience is that a printed textbook for a student cannot be replaced by some internet offer on a local server. These are two different kinds of availabilities and usages, and every one has its own advantages. Printing out the content from the server cannot be taken as a replacement for a textbook. It will become too expensive for the whole text, and the result will be worse than a paperback textbook.

This example shows that print publications will survive to some extent and that the electronic publications will take over only some part of the business. This will be different with the information on mathematical literature. The classical print version of Zentralblatt now publishes about 15.000 pages annually covering about 60.000 items. It has reduced search facilities compared with the on-line version in the internet or the off-line version on CD-ROM. Here the future exclusively will belong to the electronic offers as soon as most mathematicians will have the tools to use them.'