

HONORARY GRADUATE

ACHIM RICHTER

Achim Richter ranks among the most distinguished physicists in Germany and worldwide. As an experimental physicist he has covered a wide range of activities - with nuclear physics being the major focus - from which a great variety of research directions have emerged.

Achim Richter was born in Dresden in 1940 and completed his school education there but was refused admission to university for political reasons. At the age of nineteen he escaped to West Germany and was admitted as a physics student to Heidelberg University where he completed his doctorate. After research fellowships at Florida State University and Argonne National Laboratory in Illinois between 1967 and 1970 and at the Max-Planck Institute of Nuclear Physics in Heidelberg, he became Professor of Physics at the Technische Universität in Darmstadt.

Professor Richter has served on numerous committees, nationally and internationally. In South Africa he was a member of the Physics Advisory Committee of the National Accelerator Centre and a Foundation for Research Development (FRD) member on the evaluation of the Schonland Research Centre for Nuclear Sciences. He has also acted as a confidential referee for the FRD (now the NRF) in numerous cases of evaluation of South African scientists. He has several hundred publications to his credit and has received two honorary doctorates from universities in Sweden and Belgium. He enjoys the rare distinction of being an Elected Foreign Associate of the Royal Society of South Africa.

He has had a longstanding relationship with the University of the Witwatersrand and is currently involved in three different research activities here with three different scientists. The first of these, and one of the longest uninterrupted intensive collaborations, is with Professor Friedel Sellschop. This arose out of the discovery of a new phenomenon of electron channelling radiation which has grown into a multi-party collaboration including Wits, using the electron accelerator at Aarhus, Denmark. The follow-up to this discovery was pursued using the superior electron accelerator at the Technical University at Darmstadt which was conceived, designed and built by Professor Richter together with his students. The many publications that have appeared in the best of international journals have brought Wits widespread recognition for its key role in developments in this important field.

In collaboration with Dr John Carter of the Department of Physics, Professor Richter has studied the physics of heavy ions and nuclear structure. This research involves contacts with experimental groups at the National Accelerator Centre at Faure. As long ago as 1975 Professor Richter suggested new directions in Dr Carter's research programme which led to numerous nuclear structure projects both in Germany and South Africa involving research students from both countries.

More recently the theoretical work of Professor Dieter Heiss of the Department of Physics has initiated the development of an experiment conducted at Darmstadt under the guidance of Professor Richter. In this case again, Professor Richter has proved to be a top class scientist.

immediately grasping the theoretical and fundamental aspects of the problem and assigning the experiment to one of his most talented doctoral students.

Professors Richter's interest in contacts with scientists in this country reflects two elements of his personality. The one is his drive to spread science in general to countries which have had less favourable opportunities, be it for geographical or socio-political reasons. The other is his passionate pursuit of research of the highest quality. We are fortunate at this university that we could match the second criterion. With regard to the former, there is ample evidence of his genuine interest in and support of black research students in particular. The combination of these two aspects has provided a further boost to the international standing of young as well as established scientists.

It is with great pleasure that the University confers upon Achim Richter the degree of Doctor of Science *honoris causa*.