



## LAUDATIO

### ULRICH GRIGULL

#### ON THE OCCASION OF HIS SIXTY-FIFTH BIRTHDAY

ON 12 MARCH 1977 Professor Dr.-Ing. Ulrich Grigull will celebrate his 65th birthday; students, colleagues, friends and the members of his family, close or abroad, will think of him as a great teacher, a gifted scientist, a cooperative colleague, a helpful friend and a patient and understanding father.

Ulrich Grigull was born in Gallingen, East Prussia. He studied and graduated at the Technische Hochschule, Danzig and at the age of 24 he became Assistant to Ernst Schmidt there, in an institute which had achieved worldwide renown. After two years in Danzig, Ulrich Grigull followed Ernst Schmidt to Braunschweig to work at the "Deutsche Forschungsanstalt für Luftfahrt". From this work there resulted his first publication, together with Ernst Schmidt and

Ernst R. G. Eckert on "Wärmetransport durch Flüssigkeiten in der Nähe ihres kritischen Zustandes" (The heat transfer by fluids in their near critical state).

This publication formed the basis of the so-called Schmidt-cooling of gas-turbine blades and still now, 28 years later, its importance is alive as an early demonstration of a cooling device which nowadays is called a wickless heat pipe. In 1941 U. Grigull received his Dr.-Ing. for an investigation on "Wärmeübergang bei der Kondensation mit turbulenter Wasserhaut" (Heat transfer in turbulent film condensation).

His thirtieth birthday saw him embarking onto a German submarine on the shores of France to serve with the Kriegsmarine and make his way to a first lieutenant. During the difficult post-war years in

Germany, he worked again in heat transfer, as a consultant in insulation problems to a number of industrial firms, until in 1953 he joined the engineering section of Farbenfabriken Bayer in Leverkusen.

In 1960 U. Grigull accepted the Chair of Technical Thermodynamics at the Technische Hochschule München and became successor to Ernst Schmidt. An outstanding tradition and scientific renown had been accumulated to this chair by all former owners: Carl von Linde as the founder; Moritz Schröter who was substantially involved in the development of the Diesel engine; Wilhelm Nusselt and Ernst Schmidt whose names are manifested in important dimensionless groups in the field of Heat and Mass Transfer.

Professor Grigull secured this tradition and added to the high scientific standing by a great number of works in the fields of thermophysical properties, free convection and change of phase. He has published 86 scientific articles apart from his books, and had 35 students working under him—another 16 are presently involved—for their doctor's degree. His lectures in the entire field of Technical Thermodynamics and in Heat and Mass transfer provided the professional background for a great many students. The Göschen booklet "Technische Thermodynamik" which he first published in 1966 has become a hand-book to many of them. As early as 1955 he had published the completely revised edition of Gröber-Erk's "Die Grundgesetze der Wärmeübertragung" (The basic laws of heat transfer). This book has experienced two further editions and translations into English, Japanese, Russian and Spanish. It represents one of the most extensive and thorough standard works on Heat Transfer in the German language.

To his university, Professor Grigull served as Dean of the Faculty and from 1972 as Rektor. In 1975 he was elected the first President of the Technische Universität München.

In the Federal Republic of Germany Professor Grigull is one of the outstanding members of the scientific community. It was his activity and his merit to have Heat Transfer recognized as a self-contained discipline in teaching and in research here. For many years he has headed the VDI working group "Heat and Mass Transfer" often referred to as the "Grigull-Club". He founded, together with E. Eckert and P. Grassmann, the German Journal "Wärme- und Stoffübertragung". He initiated a DFG (German Science Foundation) Program on Boiling Heat Transfer which

found almost all pertinent German university research institutions in a newly experienced cooperation. His high scientific reputation has become manifest by his nomination as a member to the Wissenschaftsrat (Scientific Council of the Federal Republic of Germany) in 1970.

The international heat transfer scene has in Professor Grigull one of its most distinguished promoters. He was one of the founders of this "International Journal of Heat and Mass Transfer" which has proved a highly efficient vehicle in the real formation of an international heat transfer community. The idea of a world-wide heat transfer conference to be held every four years saw an engaged advocate in him and he became an active German delegate in the "International Assembly for Heat Transfer Conferences" founded in 1966. For the 1970 International Heat Transfer Conference in Versailles, he was Vice-President and one of the responsible organizers; for the 1974 Conference in Tokyo, he was President of this Assembly. Professor Grigull is a member of the Scientific Council of the International Centre for Heat and Mass Transfer in Belgrade and the German delegate of the International Association on the Properties of Steam.

The "Max-Jakob-Award", the highest honour bestowed in the field of Heat and Mass Transfer was conferred in 1974 to Professor Grigull as the second German recipient after Ernst Schmidt. The citation accompanying this award reads: "... in summary for his excellence in research, engineering practice, teaching and international service in Heat and Mass Transfer."

For these qualities, we know and appreciate him. In his clear and straightforward argumentation he is an esteemed and helpful representative on scientific and administrative boards.

As occupied as Professor Grigull is with great responsibilities for one of the largest universities in Germany, he finds time to be a devoted husband, father and grandfather. His wife Lydia Grigull and his daughters Barbara with her family and Andrea form a charming group which makes a visit with them always a pleasure.

The Editors of this Journal wish their Co-Editor Professor Grigull a happy birthday. We are sure that his many colleagues, friends and students all over the world join us in wishing him many more years of successful accomplishments.

E. HAHNE