

## Professor Dr.-Ing. Dr.-Ing.e.h. Ulrich Grigull on his 80th birthday



ULRICH GRIGULL, Professor emeritus, Technische Universität, München, celebrates his 80th birthday on 12 March 1992.

He is one of the founding members of the *International Journal of Heat and Mass Transfer*. Together with other scientists of various countries he felt the need for a journal that could bring together the many papers which were published in all of the many journals in different fields. It soon became apparent that such a journal could not only bring together papers but also people; people from different countries from East and West, worldwide. Heat Transfer proved to be a field with worldwide activities, an autonomous field, unalterable for the many problems to be solved. Grigull advocated strongly that this 'International Heat Transfer' manifests itself in a regular conference and in 1966 the 'International Assembly for Heat Transfer Conferences' was founded. Ever since, this assembly has taken care of a Heat Transfer Conference every four years, attracting up to one thousand scientists and their companions. Despite political turmoil and ideological barriers, these Heat Transfer Conferences have opened doors and always gathered scientists, many of them becoming personal friends.

In the national scene, Grigull has been equally active in having Heat Transfer recognized as a self-

contained discipline in teaching and research. Together with E.R.G. Eckert and P. Grassmann, he founded the German journal *Wärme- und Stoffübertragung*.

Ulrich Grigull has been and still is one of the outstanding promoters of Heat Transfer in his own country and throughout the world. His scientific activities span the entire field of Heat Transfer.

As a young assistant to Ernst Schmidt he investigated the Heat Transfer in the thermodynamic critical region. In this region, thermodynamic properties are so advantageous for Heat Transfer that even natural convection becomes an effective regime for cooling high-temperature equipment. This cooling method was applied to gas turbine blades in 1942 and it is reported that 'it was amazing to look at the turbine case, glowing white, and hearing the blades running smoothly'. His doctoral thesis on 'Heat Transfer in Turbulent Film Condensation' has become one of the classics in the field.

During the Second World War, Grigull had to serve with the Kriegsmarine as an engineer and officer. In the following years he worked in several firms of chemical and textile branches and became director of an insulating firm. Besides his industrial work he was able to complete the revised and heavily extended new edition of the book *Grundgesetze der Wärme-*

*übertragung*. This book was translated into English, Japanese, Russian and Spanish; it represents one of the most extensive and thorough standard works on Heat Transfer in the German language. Now, for the immensely increased knowledge in the field, Grigull decided on a Book Series on Heat and Mass Transfer. The following volumes have appeared: *Heat Conduction* (with H. Sandner), *Mass Transfer* (by A. Mersmann), *Convective Heat Transfer* (by G. P. Merker), *Condensation and Boiling* (by K. Stephan), *Thermophysical Properties* (by W. Blanke, Editor), *Radiation Heat Transfer* (by R. Siegel, J. R. Howell and J. Lohrengel) and *Optical Measurements* (by W. Hauf, U. Grigull and F. Mayinger).

In 1960 U. Grigull accepted the Lehrstuhl für Technische Thermodynamik (Chair for Technical Thermodynamics) at the Technische Hochschule München as the successor to Ernst Schmidt. Professor Grigull secured the tradition of this chair and added to its high scientific standing. Optical methods using shadowgraph and Schlieren methods as well as interferometry with a Mach-Zehnder interferometer were further

developed. Thus, Heat and Mass Transfer phenomena were made visible and better understood.

As a University Professor Ulrich Grigull has contributed to almost every aspect of Heat Transfer and he laid foundations with about 120 scientific papers and more than 40 books or book contributions. More than 40 scientists call him their 'Doctor father' and a great many students learned the basics of Thermodynamics and Heat Transfer from him.

U. Grigull is, certainly, one of the best known members of the International Heat Transfer Society, has held numerous positions, and had numerous honours bestowed on him.

*The International Journal of Heat and Mass Transfer* wishes to honour its Co-Founder and Editor, Prof. Dr.-Ing. Dr.-Ing.e.h. Ulrich Grigull by this special Festschrift issue. Colleagues and friends have contributed here in their appreciation of U. Grigull's work. The International Heat Transfer Community bids a happy birthday and presents their best wishes to Ulrich Grigull.

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