FROM THE EDITOR

It is my pleasure to be able to present the issue devoted to the Computational Fluid Dynamics (CFD), for the third time already. It has become a tradition, by now, that the first or second journal number each year deals with this field of sciences.

The editorial board tries to maintain the idea of presenting CFD research carried out by means of TASK resources in the perspective of research done in Poland as well as abroad. Similarly to the last year, the opportunity of CFD issue has been used to give some more space to a young scientist to publish an abbreviation of a recently completed PhD thesis. There is only one such chance a year and we consider it good practice.

CFD is one of the fields of sciences demanding maximum power of computing. Thanks to the enormous development of computer abilities Fluid Dynamics underwent a great change in CFD methods and complexity of considered flow cases. However, activity in CFD is still limited by the computer resources. This is also a problem for TASK, although its recourses are increased considerably each year. It is more and more difficult to get the calculation results in reasonable time. Parallel computing becomes more popular but the effort of parallelisation doesn't pay back sufficiently due to the general overload of computers of TASK.

In order to overcome the problem some TASK customers and the TASK centre itself are considering the possibility of implementing the Beowulf, which is a collection of PCs interconnected by network. Networked clusters of PCs or workstations using off-the-shelf processors and computation platforms as Fast Ethernet and Gigabit Ethernet are becoming cost effective and popular. This concept, known as cluster computing will surely flourish because it may provide enormous computer power at costs, which are an order of magnitude lower than those of massive parallel machines.

The interest in high performance and distributed computing has been supported by the new contact, which has been coupled with Mr Janusz Kowalik. Thanks to his friendly attitude we may present in this issue his paper on High Performance Computing and Distributed Computing. The team of TASK is looking forward to further

co-operation, advice and help from Mr Kowalik at gaining expertise in cluster technology. He is a former student of the Technical University of Gdansk and received his Doctor's Degree of Technical Sciences from the Polish Academy of Sciences. Currently he is a manager at Boeing Company, responsible for Enterprise Systems Performance and Scalability. He is also an Affiliate Professor of Computer Science and Engineering at the University of Washington in Seattle, Washington.

This issue contais also two non-CFD contributions: the invited paper on computational linguistics by prof. Wiesław Lubaszewski, and – as usual – a paper by prof. Andrzej Januszajtis on the history of science and technology in acient Gdansk.

Piotr Doerffer

Gdansk, 1 April 2000