Dear colleagues!

Here is the first issue of a new periodical on interval mathematics. The idea of setting up such a publication has long been discussed, its necessity causing no doubts with the experts. At the same time setting up the publication at any of the scientific institutes couldn't be carried out for various reasons. This brought up an idea of an independent collection of works which was widely supported. Our publication would not have been possible without a considerable financial backing. The Institute for New Technologies has agreed to us provide it. Having the opportunity to express our gratitude we would like to thank the general director of this Institute Dr. A.L.Semenov and the director of its Leningrad branch Dr. V.A.Noskin. This publication would never have seen light had it not been for their help.

The editorial board includes experts in interval mathematics who have shown interest in the actual publishing of this collection of works. While compiling the editorial board we tried to represent all major Soviet scientific groups actively working in interval mathematics field. Representatives of sponsoring organization have also become members of the editorial board. In the nearest future we plan to expand the editorial board by inviting famous foreign experts to take part in its work. We shall be grateful for any proposals on editorial board staff.

Having made the analysis of current situation with scientific periodicals one can point out that there is no periodical considering interval mathematics "its own" field of research in the Soviet Union. There is no interval journal, and the existing periodicals in adjacent fields of mathematics are reluctant to accept "interval" articles. This hampers the exchange of information between experts.

Formation of interval mathematics in the Soviet Union developed in such a way that at about the same time they came to realize the need for developing interval methods in various scientific-research centres. As a result of that there appeared several groups of scientists dealing with problems close in

their subject. One can not single out any leading group amongst them which would direct and coordinate the others' activities. The possibility of effective information exchange between members of various groups is of vital importance in such a situation. This exchange successfully takes place once or twice a year at the meeting of all the experts interested in the subject. After such meetings collections of reports' short theses are published, which also contributes to the scientific exchange. At the same time the opportunity of a detailed explaining of one's view is rather scarce as well as publication of extensive works. Besides, out of experience, publishing various kinds of scientific and, if it is possible to put it that way, close-to-scientific information has the same significance as issuing articles classical in their form.

Apart from original works to which special attention will be paid in this publication we suggest to publish reviewing articles. These can be reviews of one's own works or articles presenting the latest achievements in some fields of interval mathematics or educational texts.

As far as it is possible we are going to include in our collection materials on application of interval methods in various fields of knowledge. We'd like to stress our readiness to publish materials on computer realization of interval algorithms, and also any information including advertisements about the existing hardware and software that might be of interest for experts to whom this collection is addressed. A separate section of this collection is planned to be devoted to informing the readers about publications on interval subjects. It will include reviews of the published prominent works. Beginning from the next issue we shall publish a fairly complete bibliography of works by Soviet authors on interval mathematics and the adjacent problems. The bibliography will be published in English and in Russian. Further on we plan to publish bibliography in the main subject parts (application of interval computations, computer tools, special hardware etc.).

In our collection we suppose to regularly give information about the conferences held and scheduled to take place, seminars, classes etc. in interval subjects in this country and

abroad. We would like to ask our readers to let us know about the planned and held scientific conferences on the regarded subjects. We shall be grateful if the readers supply us with detailed information and do that beforehand. Within the framework of this edition we do not exclude further publication of a complete proceedings of this or that interval conference or meeting. All the things mentioned above do not cover the whole range of works that can be published. We are ready to consider any proposals.

This collection's authors' group has just started to take shape. On the one hand we are going to order articles by leading experts, on the other hand - to publish works mailed to the editorial office.

It's not a secret that since the appearance of the first works on interval mathematics in the Soviet Union and up to present time connections between Soviet and foreign experts have been very weak (which is typical not only of interval mathematics). Until recently going abroad for Soviet experts was a problem for political reasons, now it is due to economic reasons. That is why Soviet scientists very seldom take part in the international symposia. On the other hand whereas our experts are more or less informed about foreign scientists' achievements (from the foreign scientific literature) foreign scientists are much less familiar with the works by Soviet scientists, mainly due to the so-called language barrier. We shall try to make the information exchange between Soviet and foreign scientists working in the field of interval mathematics as active as it is possible on the pages of this publication. First of all we shall try to introduce foreign readers to the articles by Soviet authors. We have received a number of letters from abroad, the authors of which have shown interest in cooperation (in response to our information about setting up this collection). This fact makes us feel rather optimistic.

In the issues to come we shall try to publish as much as possible in English. This will make the articles easily accessible for the readers in various countries and will stimulate their interest in the edition on the whole. Some of the articles as well as informational materials will be

published in two languages. The amount of material published in English will be kept at the level of no less than 50 %. If an article published in Russian presents some interest for the English-speaking readers they can apply to the editorial office for the English translation. We shall regard the possibility of publishing its English version (in case many people are interested) or mailing the translation to an individual.

The amount of materials sent to the editorial office is not limited but we reserve our right to split the article into several parts to publish it serially. All articles received will be reviewed and can be returned to their authors for polishing up. We would like to ask everybody to stick to the requirements for manuscript preparation printed in the end of this issue.

The variant of the typographical layout that you will see is not final. It may be improved. The regularity of coming out of each issue will be determined by the amount of materials ready for publication and will reach one issue in 2 to 4 months.

Materials for publication and proposals concerning the edition can be sent to editor's address: Leningrad Institute for Informatics and Automation (Lab. for Applied Informatics) Academy of Sciences of the USSR, 39, 14th Line, 199178 Leningrad, USSR. One can apply to the same address for subscription or receiving separate issues of the edition.

Chief Editor
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