

SECOND ANNOUNCEMENT and CALL FOR PAPERS
INTERNATIONAL CONFERENCE ON
INTERVAL AND COMPUTER-ALGEBRAIC METHODS
IN SCIENCE AND ENGINEERING

(INTERVAL'94)

MARCH 7-10, 1994 - ST.PETERSBURG, RUSSIA

SCOPE

Numerical Calculation and Symbolic Computation are usually both present in solving the problems of applied and theoretical mathematics. Historically, however, these fields have developed practically independently. Recognition of the necessity of considering their interaction is increasing. As a result, more work is focussed on the boundary between numerical and analytical methods; to develop means for analytical transformations in systems for numerical processing and means for numerical processing in computer algebra systems. However, the areas of numerical analysis and symbolic computation are still highly isolated and the process of their joining into a single area of Mathematical Computation and Applied Mathematics is still at the very initial stage. The conference under consideration is designed to stimulate this process.

An initiative to organize this conference originated from researchers in the area of reliable numerical computations based on the interval approach (sometimes the terms validated numerics, localizational computations, or enclosure methods are used). This area has additional common points with computer algebra in addition to ones with numerical analysis as a whole.

The INTERVAL'94 conference continues a tradition of INTERVAL'XX conferences held every two year. As before, talks will be devoted to development of computing methods, design of computer tools, and applications in a wide range of areas, in particular, in control theory and theory of games. The previous conference was held in September 1992 near Moscow, with impressive success. Papers were presented by 106 participants from 17 countries throughout the world. The INTERVAL'92 conference emphasized the relation of interval computations to mathematical statistics. (The complete title of the conference was "INTERVAL AND STOCHASTIC METHODS IN SCIENCE AND ENGINEERING"). Pro-

ceedings of this conference have been published as two special issues of the International Journal "Interval Computations".

TOPICS

The following topics will be considered: interval mathematics, hardware and software for interval and computer-algebraic methods, SC-languages, use of interval algorithms in computer algebra systems, analytical evaluations in interval algorithms, organization of symbolic-numeric interfaces, control problems with uncertainty, games, differential games, interval and computer-algebraic methods in education, unification of terminology and notation, and applications in various fields of science and engineering.

Although the INTERVAL'94 conference will emphasize interdisciplinary research with computer algebra, neither "purely interval" nor "purely symbolic" papers certainly will be excluded.

ORGANIZATION

The conference is organized by

- The International Journal "Interval Computations"
- St.Petersburg State University

Faculty of Applied Mathematics and Control Processes (PM-PU)

Institute of Computational Mathematics and Control Processes

- Institute of New Technologies (Moscow - St.Petersburg)

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INTERNATIONAL PROGRAM COMMITTEE

Chairmen:

R.B.Kearfott (USA); V.M.Nesterov (Russia),
J.Wolff von Gudenberg (Germany)

G.Alefeld (Germany), B.Buchberger (Austria), B.Dobronets (Russia),
V.Gerdt (Russia), J.R.Johnson (USA), W.Krandick (Austria), U.Kulisch
(Germany), W.Lassner (Germany), R.Lohner (Germany), G.Menshikov
(Russia), E.Musaev (Russia), M.Nakao (Japan), D.Ovsiyannikov (Russia),
L.Petrosjan (Russia), H.Ratschek (Germany), S.Rump (Germany),
S.Shary (Russia), D.Shiriaev (Germany), H.Stetter (Austria), A.Yakovlev
(Russia), V.Zyuzin (Russia)

Local organizing committee

V.Zubov (chairman), V.Nesterov, E.Musaev, G.Menshikov,
S.Voitenko, V.Bukarin

VENUE AND FORMAT

The conference will be held in a building of the Educational Center approximately 500 meters from the St.Petersburg's metro station "Pionerskaya" (about 15 minutes from the Center of the city by metro). Address of the Educational Center: Aerodromnaya, 4. The hotel for participants, with single and double rooms available, is located in the same building. Three meals daily will be provided in the hotel.

Participants should arrive March 6-th. The conference will start in the morning of March 7-th and will continue through the March 10-th. Latest possible departure is the evening of March 11th.

The conference will be keynoted by plenary lectures by well-known experts. For these talks an extended time is planned, for contributed talks 20 minutes is suggested. It is possible to present a poster talk if desired.

The official languages of the conference are English and Russian (with mutual translation).

During the conference a demonstration hall with IBM PC AT and Macintosh type computers will be available. Fax and electronic mail connections will be provided upon request for participants at all times. Coffee and tea breaks will be provided.

Guests will be provided with a discount from the registration fee and an additional program of cultural events.

EXTENDED ABSTRACTS AND PAPERS

A collection of extended abstracts will be printed before the conference. Proceedings including full versions of selected papers will be published after the conference in special issues of the International Journal "Interval Computations", in the International Journal "Symbolic Computations" and in the International Year Book "Game Theory and Applications".

THE CITY AND WHETHER

St.Petersburg is the historical capital of Russia, and a major international tourist attraction. Being founded as the capital of the Russian Empire, St.Petersburg was built under a general plan by the most famous West European and Russian architects and sculptors. The city is placed at the Baltic sea in the delta of Neva River and is broken into approximately one hundred islands by numerous rivers and channels. During its existence as the capital of Russia, many palaces, cathedrals, museums and theaters were built. Among them are the world famous Hermitage museum with its art collection numbering more than 3 million pieces, Russian Museum (paintings and sculptures), the St.Isaac's Cathedral, the third largest in the world, and many others. The city is surrounded by beautiful suburbs almost as famous as the city itself. Former summer residences of Russian Tsars, wide parks both in English and French style, sculptures, bridges and fountains in harmony with trees, lakes and channels give rise to the title "Silver ring of St.Petersburg" and to the city's reputation as a place of rest and tourism.

The weather in March in St.Petersburg is normally windy and fresh with considerable changes of temperature from day to day from -11-8 C (+12 - +18 F) to +2 - +3 C (+35 - +38 F). Snowfalls are possible though most of time the weather is sunny and clear.

SOCIAL ACTIVITIES

A basic program of social activities (included in the registration fee), an additional program during the conference and an extra 2-days program before the conference are anticipated.

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The basic program includes a sightseeing bus tour of the city, a theater or a classic music concert and excursion to the St. Isaac's Cathedral.

An additional program during the conference (for both participants and guests) includes a visit to the Hermitage, a bus excursion to Pavlovsk's palace and museum complex, and a walking excursion of the historical Center of the city.

An additional 2-days program before the conference (for both participants and guests) begins the morning of March 5-th (arrival during March 4-th) and includes a bus excursion "Prerevolutionary Petersburg" with a visit to one of the palace-museums, a bus excursion to Pushkin's palace and museum complex (in St. Petersburg's suburb), a visit to a theater (opera or classic ballet), Russian Museum, and a visit to a restaurant in Russian style.

FEES AND THE METHOD OF PAYMENT

Information about the registration fee for the conference, the hotel prices and the additional cultural program as well as the method of payment may be got from the organizing committee. In any case, payment is possible after arrival to the conference.

ADDRESSES

Contact the organizing committee by the following addresses and telephone numbers:

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Fax: (812) 234-4852; Phone: (812) 534-4120

E-mail: main – nest@nit.spb.su, additional – int94@lomi.spb.su

CONTACTS VIA E-MAIL ARE PREFERABLE!