INTERNATIONAL CONGRESS ON COMPUTER SYSTEMS AND APPLIED MATHEMATICS (CSAM-93)

St.Petersburg, July 19–23, 1993

The International Congress on Computer Systems and Applied Mathematics (CSAM-93), held in St. Petersburg, on July 19–23, 1993, has became a noticeable event of this summer scientific life. It was organized jointly by the Center of Modern Communications "Polylog" and Faculty of Applied Mathematics — Control Processes of St. Petersburg State University.

An eclectic scope enabled to gather "under one roof" specialists in various fields of computer science and applied mathematics, from pure numerical analysts to hardware and computer networks designers. Within the Congress, the section "Interval / Self-validating computations" has been working, organizationally combined with the traditional annual Interval Workshop that had thus gained the international status this year. It would be pertinent to list titles of all the talks presented to that section, since my report is published in the "interval" journal.

- V.M.Busarkin, G.Sh.Utyubaev "Properties of quasilinear operators"
- B.S.Dobronets "Iteration improvement of interval solutions"
- I.V.Dugarova "Computation of interval estimations for interval matrix characteristic polynomials coefficients"
- O.B.Ermakov, V.S.Zyuzin "The construction of upper and lower solutions of ODE using Taylor series"
 - N.M.Glazunov "Verification of analytical dependence"
 - T.E.Kaminskiy "Interval rounding off lattice"

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G.L.Kozina, V.A.Perepelitsa "Interval spanning trees problems: solvability and computation complexity"

L.V.Kupriyanova "Numerical solution of algebraic Riccati equation with interval coefficients"

G.L.Litvinov "Error auto-correction in rational approximation"

W.Luther, W. Otten "Verified inclusions for eigenvalues of Hill's equation"

N.N.Lyabakh "Selforganization and interval methods in operation with complex objects"

V.Z.Manusov, S.B. Patrushev "Applying fuzzy intervals in fuzzy models with computer-aided design"

G.G.Menshikov "Problems of interval computations teaching: two basic theorems of composition"

V.M.Nesterov "Interval arithmetic of weakly monotone functions"

A.N.Rogalev "Outer and inner estimates for the solution sets of ODE's with interval data"

S.P.Shary "Solving interval linear systems with nonnegative matrices"

V.I.Shiryaev, B.V.Pelzverger, I.S.Velkova, S.M.Burtsev "Convex polyhedra in dynamic solution taking process under uncertainty conditions"

G.S.Slotin "Statistical optimization with calculation of fluctuation factors"

I.B. Turkšen "Representation of linguistic connectives with interval valued fuzzy sets"

W.Walter "FORTRAN-XCS: A portable FORTRAN-90 module library for reliable scientific computing"

The central idea of CSAM-93 was the unification and synthesis of numerous branches of the Computer Science, interdisciplinary communication of all the specialists professionally working with computers. In that respect, interactions of the interval section with the other, more "software" sections on automatic differentiation, languages for parallel computations (where some of interval specialists submitted their talks)

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and even the logic programming workshop were very useful within the Congress.

On the whole the Congress seems to have been quite successful. Considerable representation of not only Russian, but of foreign scientists as well, interesting social events and good conditions both for scientific contacts and leisure, such are, to mind, the merits of the Congress.

On the other hand, the main disadvantage of the meeting in St. Petersburg resulted from the intention of the organizers to have done so as to satisfy all and sundry, that is, to make the scientific program of the Congress equally accessible and fruitful for all Russian and foreign participants. Of the first, not all have a good command of English, the language of international scientific community, and of the second, almost nobody know Russian. The necessity logically follows from this fact to simultaneously translate from Russian to English and vise versa the reports contained a large portion of scientific and technical terminology. However, to resolve the complicated task properly had proved beyond the organizers' power. The author of these lines himself knows many occurrences in which the interpreter's work was below standard. I am firmly convinced that at this kind of meeting a simultaneous translation must be organized so as not to be noticed. Otherwise, it would be better if such a translation did not exists at all and the meeting had only one working language. I hope the organizers of the forthcoming international interval forums in Russia will take that experience into consideration.

Sergey Shary

Interval Co No 1, 1993

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Замет го года с гресс по (CSAM-S муникац процессс универс:

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