CONFERENCE ON NOMOGRAPHY

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The 9th Scientific Conference of the Physics and Mathematics Departments of Colleges in the Volga Region was held in June 1968, in Yaroslavl'. The work of the panel on computer mathematics, nomography, and mathematical logic was led by the nomography sector of the Computing Center of the USSR Academy of Sciences, which is the leading organization coordinating scientific research in this field in our country, sustaining close ties with foreign scientists in the field.

The contents of the thirty or so papers on nomography discussed at the panel showed that new progress and new successes have been registered in the field in the three years since the first All-Union Conference on Nomography. The development of computer techniques has not detracted from the value of nomography: it has rather had the effect of more clearly defining the range of best application of this scientific discipline.

As a result, nomography has been established firmly as a tool for low-level mechanization of computing work. Some of the reports on applied topics, most of them presented by industry-wide institutes and planning institutes, reported some interesting examples of the use of nomographic methods in the most widely contrasting engineering calculations. Specialized functional slide rules for use in speeding up calculations with complicated formulas were demonstrated, and new opportunities for the use of alignment charts to simplify optimization work in many concrete problems were pointed out. Regular practical use of nomography was confirmed by the development of basic fundamentals of nomography, where search efforts are concentrated on expansion of the regions of representability, improving all possible special procedures, deeper development of methods of approximate nomography, and tightening the ties between nomography and electronic computer practice.

Possibilities for even further expansion of nomographic methods in nuclear physics and nuclear engineering calculations were mentioned on several occasions during the panel's work. R. I. Novobranova from the Novocherkassk Pedagogical Institute constructed a nomogram of one trigonometric formula suitable for use in many aspects of atomic physics research. G. N. Potetyunko, an instructor at the Rostov-on-Don Pedagogical Institute, put forth some interesting arguments on ways to express many nuclear physics formulas in nomographic form. The work of the panel pointed out the need for broader development of modern nomography, since it may prove a highly useful tool in many scientific and engineering calculations.

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