

# **8th IT STAR Workshop on History of Computing**

**First Decade of Scientific Cooperation between the  
Socialist Countries in Computing**

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# Academies of Sciences

- During the socialist period in East Europe, the official representative of the scientific community of each of the socialist countries was its Academy of Sciences. The international scientific cooperation was organized and managed by the Academies.
- In 1960, following the idea of Isaac Auerbach, the International Federation for Information Processing (IFIP) was founded in the framework of UNESCO. All socialist countries become members of IFIP through their academies of sciences.
- Due to this, the structure of scientific cooperation between the socialist countries in computing followed the model of IFIP.

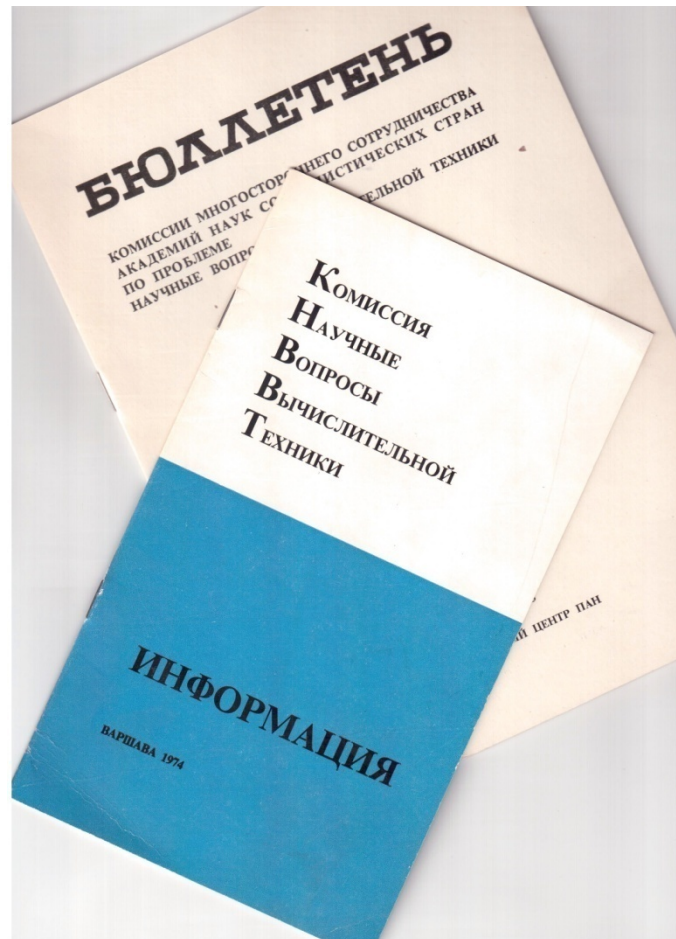
# Commission for Scientific Problems in Computing

In October 1962, in Warsaw, Poland, during the First meeting of the Academies of Sciences of the socialist countries, the **Commission for Scientific Problems in Computing (KHBBT)** was established. In the translation of the name of this Commission, "Вычислительной Техники" stands for "computing".

One of the ideas of the founders of KHBBT was to use the contacts with the West, through IFIP, for helping the development of Computer Science in the East. In this days, an approved by the government membership in an international organization gave freedom for travel abroad of the scientists attending the activities of this organization.

The Polish Academy of Sciences was elected as coordinator of KHBBT.

# Commission for Scientific Problems in Computing (КНВВТ)



# Founding Members of KHBBT

- Academician **Lubomir Iliev**, BULGARIA
- Professor **Matthias Arato**, HUNGARY
- Professor **Joachim Lehman** , DDR
- Professor **Zdzislav Pawlak**, POLAND
- Professor **Stefan Berty**, ROMANIA
- Academician **Anatolii Dorodnicin**, USSR
- Professor **Vladimir Knichal**, CZECHOSLOVAKIA

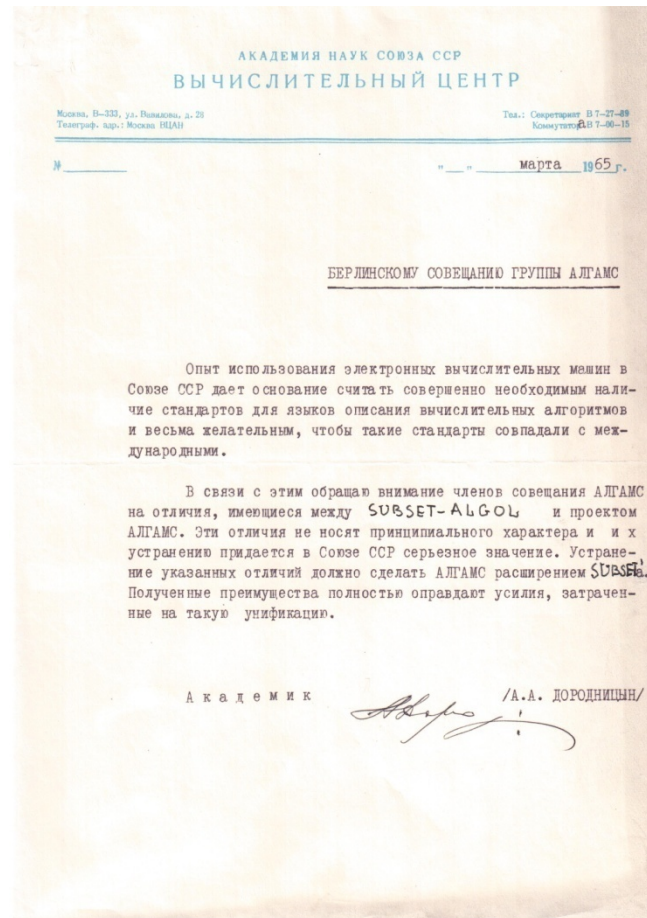
# Technical Committees and Working Groups

As in IFIP, KHBBT established Technical Committees and Working Groups.

The proposal for the establishment of the first working group in KHBBT, named GAMS (ΓAMC), was made during a meeting, which took place on 7-12, October 1963 in Sofia. The idea was given by Antoni Mazurkiewicz . The name ΓAMC stands for “Group for Automatic Programming of Middle-class Machines.

GAMS worked very hard and produced an algorithmic language, called ALGAMS.

# Letter of Acad. A. A. Dorodnicin



It is interesting to see the letter of Academician A. Dorodnicin, dated March 1965, to the meeting of GAMS in Berlin.

“ . . . I point out on the differences existing between ALGAMS and SUBSET-ALGOL. These differences are not principal and their removal is considered very important for the USSR. The removal of these differences must make ALGAMS an expansion of SUBSET-ALGOL. ... ”

This letter shows exactly the influence of the West on the East in computing.



# 4th Working Meeting of GAMS Berlin (DDR) 22-27, March 1965

*Bulgarian Academy of Sciences:* Bl. Sendov

*Hungarian Academy of Sciences:* Balint Domolki, Bacos Tomas

*DDR Academy of Sciences:* Reinhold Kreter, Roland Strobel,  
Friedrich Grund, Immo Kerner

*Polish Academy of Sciences:* Josef Maronski, Antoni  
Mazurkiewicz, Ludwik Czaja

*Romanian Academy of Sciences:* Dragos Vaida

*USSR Academy of Sciences:* Eduard Ljubimski, Vladimir  
Kurochkin

*CSSR Academy of Sciences:* Evzen Kindler, Jaroslav Kral

# SUBSET ALGOL – subset ALGAMS

- During the 4th working meeting of GAMS, the recommendation of Acad. A. A. Dorornicin was realized.
- In this meeting, several other technical problems were discussed and adopted.
- Every delegation receives a specific problem to be studied and reported during the next working meeting of GAMS.

# ТЕКМО

## Technical Committee for Mathematical Support

- In 1969, following the decision of КНВВТ, the “Технический Комитет по Математическому Обеспечению (ТЕКМО)” , Technical Committee for Mathematical Support, was established.

In the framework of ТЕКМО, a series of seminars were organized.

# Examples of TEKMO Seminars

- Construction of translators for high level programming languages, in USSR, 1971. Org. committee: A. P. Ersov, V. M. Kurochkin, E. E. Lubimskii.
- Methods for creating specialized languages and their realization, in DDR, 1971. Org. committee: N. Lehmann, S. S. Lavrov

# Cooperation and Responsibility in the Framework of KHBBT in 1970

- Numerical methods – USSR AS
- Automatic programming and algorithmic languages - Polish AS
- Automata theory and theory of information -Romanian AS
- Theory of the logical structures of the calculating machines and projects for systems – DDR AS
- Mathematical linguistic - Hungarian AS
- Mathematical modeling – Bulgarian AS
- Using mathematical methods and computers in the problems of economics – Czechoslovak AS

# Examples of Specific Problems

- **Report on the memory distribution:** Polish Academy of Sciences
- **Report on syntax analysis:** CSSR Academy of Sciences
- **Proposal for “Information exchange, translator-operator and program-operator “:** Hungarian Academy of Sciences
- etc.

# Letter of prof. Dr Jdislav Pavlak, 24.08.1972

- As responsible for KHBBT, prof. J. Pavlak, evaluated its activity and concluded:  
“... The existing practice of attaching the responsibility for coordinating the cooperation in specific scientific fields to different Academies is formal and not effective .”  
Prof. J. Pavlac proposed to give responsibility to the working groups as TEKMO.

# End of First Decade of Scientific Cooperation

The second decade of cooperation between the socialistic countries in the field of information processing was dominated by economics, not by science.

The leading role was taken by the СЭВ -  
“Совет Экономической Взаиморомошти”  
(Council for Mutual Economic Assistance).