

Control and Cybernetics

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The Moving Frontier Questionnaire

response by

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1. What kind of problems are you currently working on ?

I am now interested in the theories of bargaining and electoral systems, and in the models of international economic cooperation, with particular attention to the relationship between Eastern and Western countries. I study these problems using the classical methods of mathematical economics, and the theories of games, of catastrophe and of fuzzy sets.

2. What problems do you think are the most important to solve in your domain in the nearest future ?

The most important problems to solve are closely connected with the current political and economical reality and its evolution. It is necessary to elaborate dynamical models capable of describing processes of progressive changes from centralized to decentralized systems. In fact, every transformation not respecting suitable times of fitting (in terms of know-how and working methods) can imply

catastrophic results after a short period. Then, these models have to set definite short, medium and long-term goals, and at the same time to study the optimal path, and the implications of possible deviations from such a path.

3. Which of the recent applications of scientific results from your domain do you consider as most interesting ?

I consider most interesting the theories of control and of dynamical systems, with particular attention to differential games.

4. To what extent is availability of definite computer hardware influencing your scientific work ?

The greater availability of mainframes with parallel processors will make more easily controllable the great quantities of data in continuous evolution, which are indispensable for the fulfilment of reliable economic models. The above is, in my opinion, the foremost contribution of informatics at the hardware level. This contribution will require, of course, adequate changes in the methodologies and philosophies at the algorithmical level.