

IPPI'S PERIODICALS

The Institute has founded and publishes two academic periodicals: "Problems of Information Transmission" and "Automation and Remote Control" which circulate in Russia and abroad.

Since October 2000 the Institute has founded the electronic scientific journal "Information Processes".

Problems of Information Transmission

Editor-in-Chief: L. A. Bassalygo.

Associate Editor: N. A. Kuznetsov.

Secretary: D. Yu. Nogin.

Editorial Board: A. M. Barg, I. A. Ibragimov, V. D. Kolesnik, R. Sh. Liptser, V. A. Malyshev, I. A. Ovseevich, **M. S. Pinsker**, V. M. Tikhomirov, B. S. Tsybakov, Yu. N. Tyurin, V. A. Uspenskii, V. A. Zinov'ev, V. V. Zyablov.

"Problems of Information Transmission" is a quarterly journal published in English by Plenum Publishing Corporation (233 Spring St., New York, NY 10013, USA).

"Problems of Information Transmission" contains research and survey articles in the following and related areas:

- Information Theory;
- Coding Theory;
- Methods of Signal Processing;
- Automata Theory;
- Large Systems;
- Information in Living Systems;
- Communication Network Theory.

"Problems of Information Transmission" is abstracted or indexed in Mathematical Reviews, Language and Language Behavior Abstracts, Engineering Index, Computer and Information Systems Abstracts Journal, INSPEC – Electrical and Electronics Abstracts and Electronics Abstracts, Zentralblatt für Mathematik, and Information Science Abstracts.

Automation and Remote Control

Editor-in-Chief: N. A. Kuznetsov

Associate Editors: A. A. Krasovskii, P. P. Parkhomenko

Secretary: D. A. Novikov

Editorial Board: F. T. Aleskerov, V. N. Bukov, P. Yu. Chebotarev, S. V. Emel'yanov, A. I. Kibzun, V. B. Kolmanovskii, V. V. Kul'ba, A. P. Kurdyukov, O. P. Kuznetsov, V. A. Lototskii, B. V. Lunkin, B. M. Miller, L. A. Mironovskii, V. N. Novosel'tsev, B. T. Polyak, Yu. S. Popkov, I. V. Prangishvili, A. I. Propoi, E. S. Pyatnitskii, V. V. Rykov, A. P. Uzdemir, V. I. Venets, V. M. Vishnevskii, B. G. Volik.

In April 1936, the first journal in the world devoted especially to the issues in control theory, "**Avtomatika i Telemekhanika**," came off press. The frequency of publication was six issues per year.

Since 1956 the journal has been a monthly publication and it has been translated into English and published in the United States under the title "**Automation and Remote Control**" by Plenum Publishing Corporation (233 Spring St., New York, NY 10013, USA).

During its existence, the scope of the journal substantially evolved and expanded to reflect virtually all subjects concerned in one way or another with the current science of control.

Now "**Automation and Remote Control**" contains research and survey articles in the following and related areas:

- Deterministic Systems;
- Stochastic Systems;
- Queuing Systems;
- Discrete Systems;
- Adaptive and Robust Systems;
- Evolving Systems;
- Developing Systems;
- Simulation of Behavior and Intellect;
- Control Hardware;
- Computer-Aided Production Control Systems;
- Computers in Control;
- Automation of Design and Programming;
- Control in Biological Systems and Medicine;
- Automata;
- Technical Diagnostics;
- Reliability;
- Computing Techniques in Automatic Control;
- Technical Tools in Control.

Automation and Remote Control is abstracted or indexed in Mathematical Reviews, Chemical Abstracts, Electronics and Communications Abstracts Journals, Current Contents, Engineering Index, Applied Mechanics Reviews, Computer and Information Systems Abstracts Journal, Zentralblatt für Mathematik, and Information Science Abstracts.

Information Processes

Editor-in-Chief: N. A. Kuznetsov.

Associate Editor: Yu. P. Popov.

Secretary: V. I. Venets.

Editorial Board: Yu. D. Apresyan, L. A. Bassalygo, M. N. Baintsvaig, A. V. Chernavskii, Yu. G. Evtushenko, V. P. Ivannikov, D. A. Koryagin, V. S. Kozyakin, S. P. Kurdyumov, V. A. Lyubetskii, G. G. Malinetskii, B. M. Miller, I. V. Prangishvili, **E. S. Pyatnitskii**, V. M. Vishnevskii, V. V. Zyablov.

The journal "**Informational Processes**" was founded in 2000 as electronic scientific journal.

"**Information Processes**" contains research and survey articles in the following and related areas:

- Information Theory and methods of Signal Processing;
- Information Transmissions in Computer Networks;
- Control in Data Bases and Knowledge Bases;
- Informational Security;
- Computer Linguistics;
- Informational Technologies in Technical and Social-Economic Systems;
- Programming;
- Analysis and Syntheses of Control Systems;
- Mathematical Models, Computational Methods;
- Informational Interaction.

Electronic address of the Journal – <http://www.iip.ru>

Contents

	Page
IITP'S BOARD OF DIRECTORS	2
GENERAL INFORMATION	3
IITP'S DIRECTIONS OF ACTIVITY AND REZULTS IN 2003	4
<i>Laboratory of Information Transmission and Control Theory</i>	5
<i>Sector of Computer Logic in Information Processes</i>	15
<i>Laboratory of Image Processing Models and Algorithms</i>	23
<i>Sector of Digital Optics</i>	26
<i>Laboratory of Data Analysis, Error Correction Codes and Cryptology</i>	30
<u>ERROR CONTROL CODES AND INFORMATION TRANSMISSION</u>	30
<u>GEOINFORMATION TECHNOLOGIES AND SYSTEMS</u>	32
<u>PARTNER SYSTEM GROUP</u>	33
<u>THEORY OF THE SPEECH SIGNAL</u>	34
<i>Dobrushin Mathematics Laboratory</i>	38
<i>Laboratory of Teletraffic Theory</i>	46
<i>Laboratory of Bioelectric Information Processing</i>	49
<u>Artificial Intelligence Group</u>	52
<i>Laboratory of Sensory Information Processing</i>	54
<i>Laboratory of Neurobiology of Motor Control</i>	62
<i>Laboratory of Communications Network Theory</i>	67
<i>Laboratory of Bioinformatics of Cell Processes and Motocontrol</i>	71
<i>Laboratory of Systems for Behavior Organizing</i>	79
<i>Laboratory of Problems of Consciousness and Communication</i>	82
<i>Laboratory of Computational Linguistics</i>	83
<i>Laboratory of Stochastic Dynamical Systems</i>	87
<i>Laboratory of Information Transmission Networks</i>	90
SCIENTIFIC-ORGANIZATION DEPARTMENT	94
<u>Group for Municipal Management Informatics</u>	94
IPPI'S PERIODICALS	95
<i>Problems of Information Transmission</i>	95
<i>Automation and Remote Control</i>	96
<i>Information Processes</i>	97