PROGRAMME

PLENARY LECTURES

Chairman – A.A. Tolstonogov
Secretary – T.I. Madzhara

09.30–10.00	**Conference opening**
10.00–11.00	*Zvi Artstein*. Relaxation methods in control (1)
11.00–11.15	**Coffee-break**
11.15–12.15	*Yuri Ledyaev*. Discontinuous feedback control for nonlinear systems: asymptotic stability, feedback stabilization and invariance (1)
12.15–14.00	**Lunch**

Monday, June 23   **ISDCT SB RAS, room 407**

SECTIONAL TALKS

Chairman – A.L. Kazakov
Secretary – V.A. Voronov

14.00–14.20	*Gennady V. Demidenko*. Systems of differential equations with periodic coefficients in linear terms
14.20–14.40	*Inessa I. Matveeva.* On properties of solutions of a system of nonlinear differential equations with parameters
14.40–15.00	*Denis N. Sidorov.* Solution of Volterra integral equations of the first kind with piecewise
15.00–15.20	*S.N. Aristov, Evgeny Yu. Prosviryakov.* Layered flows of a turbulent viscous incompressible fluid
15.20–15.40	*Alexander L. Kazakov, P.A. Kuznetsov.* On a boundary value problem for a nonlinear heat equation with data on a closed surface
15.40–16.00	**Coffee-break**
16.00–18.00	**Seminar:** *A.A. Tolstonogov, S.A. Timoshin.* Sweeping processes
18.00	*Buffet reception*

PLENARY LECTURES

Chairman – V.A. Dykhta
Secretary – E.A. Finkelstein

10.00–11.00   *Zvi Artstein*. Relaxation methods in control (2)

11.00–11.15   **Coffee-break**

11.15–12.15   *Yuri Ledyaev*. Discontinuous feedback control for nonlinear systems: asymptotic stability, feedback stabilization and invariance (2)

12.15–14.00   **Lunch**

SECTIONAL TALKS

Chairman – A.S. Strekalovsky
Secretary – M.V. Yanulevich

14.00–14.20   *Dmitry V. Khlopin.* On optimal value function for infinite horizon

14.20–14.40   *Dmitry V. Khlopin.* Tauberian-type theorems for conflict-control problems

14.40–15.00   *Nikolai I. Pogodaev.* Necessary optimality conditions in metric spaces

15.00–15.20   *Maxim V. Yanulevich, Alexander S. Strekalovsky.* On solutions search in non-convex optimal control problems

15.20–15.40   *Artem P. Baklanov.* Heuristic approach to solving the traveling salesman problem for a material point

15.40–16.00   **Coffee-break**

16.00–18.00   **Seminar:** *V.A. Dykhta.* Variational optimality conditions with feedback descent controls that strengthen the Maximum Principle

PLENARY LECTURES

Chairman – I.A. Finogenko
Secretary – A.B. Stolbov

10.00–11.00   *Zvi Artstein*. Relaxation methods in control (3)

11.00–11.15   **Coffee-break**

11.15–12.15   *Zvi Artstein*. Relaxation methods in control (4)

12.15–14.00   **Lunch**

14.00-15.00   *Yuri Ledyaev*. Discontinuous feedback control for nonlinear systems: asymptotic stability, feedback stabilization and invariance (3)

SECTIONAL TALKS

Chairman – A.A. Shcheglova
Secretary – A.S. Anikin

15.00–15.20   **Coffee-break**

15.20–15.40   *Moshe Porat*. On optimized image transmission using nonlinear analysis

15.40–16.00   *Alexander S. Larionov, Irina A. Nikishina*. Solvability of nonlinear problems for a functional-differential equation

16.00–16.20   *E.K. Lavrovsky, Elena V. Pismennaya*. On regular walking of the exoskeleton of lower limbs using controls in the knee joints

16.20–16.40   *Georgy E. Avedikov, P.A. Komarov, A.S. Kuznetsov*. Dynamic control system for the exoskeleton of lower limbs

16.40–17.00   **Coffee-break**

17.00–17.20   *Stanislav S. Mazurenko*. Equation of star-shaped reachable sets evolution

17.20–17.40   *Olga V. Filippova, E.V. Milyutina*. Impulse control system with phase constraints on control and delay

17.40–18.00   *Grigory M. Ivanov*. On relationship between the proximal smoothness of a set and ψ-hypomonotonicity

PLENARY LECTURES

Chairman – A.A. Tolstonogov
Secretary – N.I. Pogodaev

10.00–11.00   *Yuri Ledyaev*. Discontinuous feedback control for nonlinear systems: asymptotic stability, feedback stabilization and invariance (4)

11.00–11.15   **Coffee-break**

11.15–12.15   *Zvi Artstein*. Relaxation methods in control (5)

12.15–14.00   **Lunch**

SECTIONAL TALKS

Chairman – A.A. Shcheglova
Secretary – L.S. Solovarova

14.00–14.20   *Alexander A. Panin.* On a non-extendable solution of the Volterra-Hammerstein integral equation

14.20–14.40   *Alexander A. Panin.* On blow-up of a solution of a second order in time equation with a nonpotential spatial operator

14.40–15.00   *A.P. Golub, Lyubov A. Klimina.* Maximization of the power of a wind energy plant taking account of nonlinear dependence of the aerodynamic torque and the rapidity

15.00–15.20   *Yu. M. Okunev, Olga G. Privalova, V.A. Samsonov. Geometric approach to comparison of stability regions of dynamical systems*

15.20–15.40   *Anna P. Kruchinina, A.G. Yakushev.* On optimal saccadic eye movements performed using two controls

15.40–16.00   **Coffee-break**

16.00–18.00   **Seminar:** *I.A. Finogenko, A.A. Kosov.* The development of stability theory for non-autonomous systems based on the method of limiting equations

SECTIONAL TALKS

Chairman – A. Yu. Gornov
Secretary – V.A. Voronov

10.20-10.40	*Anna B. Dorzhieva.* Technology of evaluation of the reachable set in an economic dynamics problem
10.40–11.00	*Anton S. Anikin, Alexander Yu. Gornov.* Computational technologies for optimization of the Morse potential
11.00–11.20	*Evgenia A. Finkelstein.* Technology of stochastic approximation of the reachable set a discontinuous control system
11.20–11.40	*Tatyana S. Zarodnyuk .* Technology of estimation of the convexity of a function
11.40–12.00	*Tatyana S. Zarodnyuk., Alexander Yu. Gornov, Evgenia A. Finkelstein.* Technology of numerical resolution of nonconvex optimal control problems for systems not resolved with respect to the derivatives
12.00–12.20	*Anna N. Sedykh. Optimal impulsive control in an advertising model*
12.20–12.40	**Coffee-break**
12.40–13.00	*Vsevold A. Voronov.* Optimal control of a spacecraft manipulator and the method of successive linearization
13.00–13.20	*Igor L.Vasiliev.* Mathematical models for dispatching problems
13.20–13.40	*B.D. Nguyen, Victor F. Chistyakov.* Solution of an initial value problem for systems of degenerate integro-differential equations by the least squares method
13.40–14.00	*Victor F. Chistyakov, Ta Zui Phuong.* On connection of properties of a degenerate linear-quadratic control problem and the Euler-Poisson equation
14.00	*Conference closure*