

## АННОТАЦИИ СТАТЕЙ НА АНГЛИЙСКОМ ЯЗЫКЕ

*Gorbatenko A.E., Nazarov A.A.* THE RESEARCH OF MAP IN CONDITIONS OF GROWING INTENSITY. Asymptotic method of analysis in conditions growing intensity is offered for the research of a MAP. The results of numerical realization of asymptotic and pre-limiting distributions of the number of events, which have come in flow during time  $t$  are given.

Keywords: asymptotic analysis, condition of growing intensity, probability distribution of the number of events.

*Goulbin K. G.* MODELING THE PROCESS OF GETTING LASER SCANNING DATA. There are different aspects of modeling laser-location data considered in the paper. Main of these are internal presentation of the terrain, modeling of laser locating process and visualization its result. The practical ways are offered for modeling of the laser ray reflections from partly permeable object, accounting laser location error and optimization of the modeling algorithm.

Keywords: laser-location, digital model of the relief, 3D objects.

*Gromov M.L.* A METHOD OF THE COMPLETE TEST DERIVATION FOR LABELED TRANSITION SYSTEMS. This paper is devoted to the problem of the complete test derivation for Labeled Transition Systems (LTS). It is suggested to transform an LTS to correspondent Finite State Machine (FSM) for which methods of derivation of complete tests are known. For this operations of transformation an LTS to FSM and FSM-test to LTS-test are defined.

Keywords: labeled Transition System, Finite State Machine, test, complete test, intersection of LTSes, intersection of FSMs.

*Livshits K.I., Bublik Ya.S.* DIFFUSION APPROXIMATION OF PUASSON'S MODEL OF UNCOMMERCIAL FUND'S ACTIVITIES BY DOUBLE STOCHASTIC PAYMENT CURRENT. The article concerns with the statistic characteristics of the mathematical model of uncommercial fund's activities by double stochastic payment current and relay managing of fund's capital. Distribution density of fund's capital in stationary regime and distribution densities of the insolvency period and the period of increased fund's payments are found by the diffusion approximate.

Keywords: uncommercial fund, distribution density of fund's capital, the insolvency period, the period of increased fund's payments.

*Lopuchova S.V.* RESEARCH OF MMP-PROCESS BY THE ASYMPTOTICAL ANALYSIS METHOD OF THE  $m$ th ORDER. In the submitted work the MMP-process is considered. Research of this process by the asymptotical analysis method of the  $m$ th order is offered.

Keywords: MMP-process, the asymptotical analysis method of the  $m$ th order, asymptotic of the  $m$ -th order, approximation of the  $m$ -th order.

*Matrosova A.Yu., Andreeva V.V., Nikolaeva E.A.* FAULT TOLERANCE SYNCHRONOUS SEQUENTIAL DESIGN FOR TRANSIENT AND INTERMITTENT FAULTS. Fault tolerance synchronous sequential circuit design for transient and intermittent faults is considered. It is based on doubling self-checking sequential circuit with using checker, OR, AND and MX circuits masking a fault manifestation. Special schemes that are the composition of the circuits are suggested. The schemes provide correct behavior of sequential circuit when any permissible fault occurs in scheme and recovering scheme when a fault disappears. We deal with single stuck-at faults at gates poles and d flip-flops poles of the scheme. Fault tolerance circuit design based on using three sequential circuits demands fault free voting circuit. In our approach any circuit of fault tolerance scheme may be fault. Experimental results showed that the fault tolerance schemes suggested have less overhead than threefold scheme.

Keywords: self-checking synchronous sequential circuits temporary faults, checkers.

*Mihaylov Yu.V., Kolomeec A.V.* CHECK TRANSITION EXTENDED AUTOMATION ON BASE CUT. In given work is offered method of the building checking test for extended automaton on base distinguishing sequences in special cut of the automaton of the source extended automaton i.e. in its simplified to versions. The sufficient conditions are fixed, under which sequences, distinguishing two conditions in cut, distinguish these conditions in source extended automaton.

Keywords: extended automaton, R-cut, FSM-cut, context-free extended automaton, distinguishing sequence.

*Nissenbaum O.V.* CONSTRUCTION OF THE EVALUATIONS OF PARAMETERS OF THE ASYNCHRONOUS ALTERNATING DOUBLY STOCHASTIC EVENT FLOW WITH EXTRA EVENT INITIATION AT PROLONGING DEAD TIME. The asynchronous alternating double stochastic event flow with extra event initiation at prolonging dead time is investigated. The Laplace transformation of probabilities density of an interval between neighbor events of an observable flow is found. The equations for unknown parameters and dead time duration are constructed. The results of statistical experiment realized on the simulation model are given.

Keywords: flow event, casual process, Laplace transformation, estimations, prolonging dead time, statistical experiment.

*Parvatov N., G.* SAME PROPERTIES OF CLOSURE OPERATORS IN COMPLETE LATTICE. On account of problems of completeness and expressability same properties of closure operators in complete lattice are learned.

Keywords: complete lattice, problem of complete, problem of expressability, closure of finite character.

*Poddubny V.V., Romanovich O.V.* THE MARKET AS OPTIMUM SELF-CONTROL SYSTEM WITH INERTIA AND DELAY. The mathematical model of the market of one goods is considered prix the known demand line with accounting of delay in supply of the goods. The general and some partial criteria of optimality of the market behavior are formulated. The market state at consequent discrete time moments is characterized by the goods price and by the volume of the unsold goods (remainders). The self-management of the market is executing by change of the goods price. The certain market conservatism (inertness) in relation to changes of the goods price is taken into account. From criteria of the optimality the strategies (algorithms) of the self-management of the market for its transition from a certain outraged state into the equilibrium state are obtained. Examples of numerical research of various market models with use of the method of possible directions are presented.

Keywords: market, price of goods, inertia, delay, mathematical model, optimal self-management.

*Reshetnikova G.N., Gladkikh D.N., Selenin E.N., Konstantinov P.V., Deryabin V.I.* ELECTRONIC EDUCATIONAL COMPLEX "MODELING OF SYSTEMS". The functional content, rules of operating and basic possibilities of Electronic educational complex "Modeling of systems" are described. The most frequently used tools of development and Web-technologies are given.

Keyword: modeling of systems, education software, client-server architecture.

*Smagin V.I., Smagin S.V.* ADAPTIVE INVENTORY CONTROL WITH RESTRICTIONS AND TRANSPORT DELAYS. The algorithm of the syntheses local-optimal inventory control with incomplete information on models of the demand and with restrictions and transport delays is considered.

Keywords: inventory control, adaptation, discrete model, system with delay.

*Stepanova N.V., Terpugov A.F.* THE CONTROL OF RETAIL PRICE OF PERISHABLE GOODS. One considers the problem of the control of retail price of perishable goods, when it is necessary to bye it during fixed time.

Keywords: control of price, selling, perishable goods.