

## Land Sciences

Yu.V. Mikhailov

### **Features of Geothermy of the Urals**

*Key words and phrases:* cleavage; heat flux; groundwater; scattering.

*Abstract:* Researchers of the Urals geothermy are unanimous in their conclusions: groundwater has an impact on geothermal conditions of the Urals. The author analyzed measurements of temperature, salinity of waters and estimated the impact of groundwater on the heat flux density and the causes of its scattering. The article showed that water-bearing rock content is determined by zonal cleavage, with the zone boundaries coinciding with the intervals of the scattering of the heat flux.

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## Pedagogy and Psychology

E.M. Orlova

### **V.M. Bekhterev's Views on the Study of Creative Personality**

*Key words and phrases:* comprehensive approach; creativity; personality; reflexology.

*Abstract:* We have considered the main views of V.M. Bekhterev on the problem of studying the creative work and personality. V.M. Bekhterev considered creativity from a strictly scientific point of view, from the perspective of objective psychology and reflexology. Referring to the work of scientist almost a century ago, we can see how the ideas generated on Russian soil have been developed abroad; today they successfully contribute to solving the problems of effective utilization of human potential, search and realization innovative approaches to education, science and creativity.

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## History, Philosophy and Sociology

P.M. Volkov, M.I. Mikheev

### **Social Stereotypes of Consumer Society as the Basis of Subordination of the Ideology of Power**

*Key words and phrases:* consumer society; myth; power.

*Abstract:* The purpose of the article is to examine the mechanism of power relations functioning in the society. This mechanism works due to certain social attitudes and behavioral stereotypes that individuals develop and implement through the "consumption". On the examples of several print publications, the authors analyze social attitudes, outline the general principles of their representation and emphasize the mythological basis of their functioning.

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E.F. Moroz

### **The Role of Education in Ensuring Russian Statehood**

*Key words and phrases:* development; educational system; place; role; safety; society; state; value.

*Abstract:* Today, the system of education has shifted from its function of shaping and developing personality, to that of ensuring social safety of the state, creating a condition for preservation of the national integrity, sovereignty of the state, ensuring the right of the people for good life.

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L.D. Rasskazov

### **Dialectics of Crisis Phenomena of Consciousness in Different Historical Epochs: Socio-Philosophical Analysis of Actual Phenomena of Culture**

*Key words and phrases:* actual cultural phenomena; consciousness; crisis; crisis consciousness; culture; globalization.

*Abstract:* This article discusses the relationship of consciousness and culture in different historical periods. Particular attention is paid to the cultural style of society in the globalization era. Consciousness is analyzed in the context of crisis theory devised by the author of the article. The essence of consciousness able to reflect the material and ideal objects has been explained. Scientific novelty of the research is the inevitability of the emerging globalization of consciousness in the culture.

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M.A. Simonova

**Russian Orthodox Church and the Soviet State in 1960–2000s: Legal Basis of Interac**

*Key words and phrases:* anti-religious campaign; Bishops; public policy; religious organizations; Russian Orthodox Church.

*Abstract:* This paper examines the main trends and forms of cooperation between the state and the church in 1960–2000s. The main stages of church-state relations in Russia are characterized. The key issues and trends in the process of changing the legislation in the context of socio-political processes are examined. The analysis allowed identifying factors influencing the specific interaction of government agencies and religious organizations in the period under review.

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## Mathematical Methods and Models

M.A. Makagonova, N.G. Makagonov

**Automated Analysis of Queuing Systems**

*Key words and phrases:* GUI (graphical user interface); MatLab; SimEvents; Simulink; Queuing system.

*Abstract:* A program for the analysis of the simulation model of queuing system (QS) in the automated mode has been developed. The analyzed simulation model of QS has limited queue and feedback. The application has a user-friendly interface for setting parameters and removal of results. This problem was solved by using Matlab.

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I.S. Nurgaliev, R. Valentini, I.I. Vasenev

**Turbulent Model of Multi-Component Gaseous Flow in Agro-Ecologic Micrometeorology**

*Key words and phrases:* greenhouse gas; material point; mathematical model; micrometeorology; turbulent diffusion; turbulent flow; vorticity.

*Abstract:* Analytical dynamic model of the turbulent multi-component flow in the three-layer boundary system is presented. Turbulence is described as a presence of the non-zero vorticity. The generalized advection-diffusion-reaction equation is derived for an arbitrary number of components in the flow. The flows in the layers are objects for matching requirements on the boundaries between the layers. Different types of transport mechanisms are dominant on the different levels of the layers.

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D.S. Khleborodov

**Efficient Algorithms for Scalar Multiplication of Points of an Elliptic Curve without Precomputation**

*Key words and phrases:* elliptic curves; fast scalar multiplication of point; scalar multiplication architecture.

*Abstract:* Scalar multiplication of a point on an elliptic curve is a basic operation in cryptographic transformations. This article presents efficient composite algorithms based on binary representation and NAF of scalar.

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## Information Science

V.S. Simankov, D.M. Tolkachev

**Methodological Aspects of Working with Knowledge in Decision Support Systems**

*Key words and phrases:* data; knowledge; the Internet; DSS; search engines; problem-oriented automatic text summarization.

*Abstract:* This paper presents a general algorithm for a problem-oriented automatic text summarization, which can be used to update the data and knowledge in decision support systems.

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# Ecology and Nature Management

A.V. Semenyutina, I.Yu. Podkovyrov, S.S. Taran

## **The Effectiveness of Using a Cluster Method for the Analysis of Benefits of Greening**

*Key words and phrases:* biodiversity; cluster analyses; decorative features; estimation method; greening areas; shrubs.

*Abstract:* The paper describes an original method of estimating decorative features of species composition based on the cluster analysis and biodiversity indexes. It was established that activities to enrich the species composition with decorative woody plants help to improve the aesthetic and sanitary functions (correlation coefficient 0.73). The efficiency of the correlation analysis to identify the mechanism and ways to optimize objects of greening of urban agglomerations has been proved.

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# Economic Sciences

N.I. Balchyunene

## **Overview of Studies on Economic Cooperation and Innovation of Karelia and Finland**

*Key words and phrases:* education; Finnish experience; innovation; interaction; science.

*Abstract:* The paper describes the prospects of development of research aimed at strengthening economic and innovation cooperation between the Republic of Karelia and Finland.

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L.L. Gishkaeva

## **Socio-Economic Consequences of Market Processes in Russia: Regional Perspective**

*Key words and phrases:* Chechnya; employment; employment policy; income; poverty; Southern Federal District; the North Caucasian Republic; unemployment rate; wages.

*Abstract:* The article has a factor analysis of socio-economic situation in the regions of the southern federal district in the North Caucasian republics in the period of market reforms in the Russian economy.

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D.R. Grigoreva, R.R. Basyrov

## **The Role, Significance and Influence of Information Technologies on the Economy**

*Key words and phrases:* information technologies; information technologies in company; society informatization; the Internet.

*Abstract:* In this article the authors generalize and analyze the concept, role and influence of information technologies on economic processes, the activity of enterprises and the economy as a whole. The process of informatization is inevitable in all countries. Information resources of the country play an important role as they define its scientific and technical progress, scientific potential, economic and strategic power.

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N.L. Zelenina

## **The Formation of Different Forms and Types of Ownership**

*Key words and phrases:* appropriation; classification of forms of ownership; ; formation of property ownership; property; social needs; specification of goods.

*Abstract:* The article is devoted to the study of classification of various forms and types of property. The author explains the specification of needs as the main criterion for the classification of forms and types of ownership.

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Yu.F. Kolesnikova

## **Refined Classification of Economic Clusters “Special Economic Zones”**

*Key words and phrases:* classification; cluster; special economic zone (SEZ).

*Abstract:* This paper describes the conditions of market relations in the economic segment of the Russian Federation, where the task of attracting foreign financial flows to the national economy through the creation of special economic zones, oriented to the different clusters with diverse classification and fuzzy structure, is becoming a particularly urgent task. The paper presents a refined classification of economic clusters and composition elements of economic cluster in the SEZ.

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N.A. Meleshkina

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**Assessment of the Chosen Strategic Directions of Development of the Major Companies in the Telecommunication Market of Russia**

*Key words and phrases:* cellular operator; competition; effectiveness indexes; income; integration; investments; profit; subscriber; telecommunication market.

*Abstract:* The paper analyzes the offered strategy of development of the major telecommunication companies for the next years

## **Political Science**

S.D. Ibragimov

**Religion in the Life of Modern Russia**

*Key words and phrases:* identification; Islam; Orthodoxy; religion; religious values; state policy in religion.

*Abstract:* This article examines the scientific problem of the role of religion in the life of modern Russia, caused by significant and widespread increase in the role of religion in the whole world. The article analyzes the causes of increasing confessional factor in Russia. The article presents the results of sociological research into the religious situation in Russia the role of Christianity and Islam as the leading religions in Russia. The basic requirements of public policy in the religious sphere have been characterized.

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