目　　录

Title: **Perturbed algorithms for solving nonlinear relaxed cocoercive operator equations with general *A*-monotone operators in Banach spaces**

Author：L.C. Cai, H.Y. Lan and Y.Z. Zou (Corresponding author：H.Y. Lan)

Sources: *Commun. Nonlinear Sci. Numer. Simulat.* ,2011, 16(10): 3923-3932（SCI）

Abstract: Based on the notion of general *A*-monotonicity, the new proximal mapping technique and Alber's inequalities, a new class of nonlinear relaxed cocoercive operator equations with general *A*-monotone operators in Banach spaces is introduced and studied. Further, we also discuss the convergence and stability of a new perturbed iterative algorithm with errors for solving this class of nonlinear operator equations in Banach spaces. Since general *A*-monotonicity generalizes general *H*-monotonicity (and in turn, generalizes *A*-monotonicity, *H*-monotonicity and maximal monotonicity), our results improve and generalize the corresponding results of recent works.

Keywords: Nonlinear relaxed cocoercive operator equation, perturbed iterative algorithms with errors, general *A*-monotone operator, convergence and stability.

Title: **On Weierstrass elliptic function solutions for a (N+1)-dimensional potential KdV equation**

Author: Yunxi Guo, YingWang

Sources： *Applied mathematics and Computations*, 2011, 217: 8080-8092. (SCI).

Abstract: This paper is concerned with several aspects of travelling wave solutions for a (N+1) dimensional potential KdV equation. The Weierstrass elliptic function solutions, the Jaccobi elliptic function solutions, solitary wave solutions, periodic wave solutions to the equation are acquired under certain circumstances. It is shown that the coefficients of derivative terms in the equation cause the qualitative changes of physical structures of the solutions.

Keyword: Potential KdV equation; The Weierstrass elliptic function solutions; Solitary wave solutions; Periodic solution.

Title: **Global weak solutions to the weakly dissipative Degasperis-Procesi equation**

Author: Yunxi Guo, Shaoyong Lai, Ying Wang

Sources: *Nonlinear Analysis: Theory, Methods and Applications,* 2011,74:4961-4973.(SCI).

Abstract: The global weak solutions for the Degasperis-Procesi equation with weakly dissipative term are investigated. Provided that $u_0 \in H^1(R)$, $y_0 = (1-\partial_x^2)u_0 \in M(R)$, $\sup py_0^- \subset (-\infty, x_0)$ and $\sup py_0^+ \subset (x_0, +\infty)$, the existence and uniqueness of global weak solutions for the equation are shown to be true in space $W_{loc}^{1,\infty}(R_+ \times R) \bigcap L_{loc}^{\infty}(R_+; H^1(R))$.

Keyword: Existence; Uniqueness; Global weak solution; The weakly dissipative Degasperis-Procesi equation.

Title: **On a class of operators from weighted Bergman spaces to some spaces of analytic functions**

Authors: Zhijie Jiang

Sources: *Taiwanese Journal of Mathematics,* 2011, 5(15)：2095-2121 (SCI).

Abstract: Let $D = \{z \in C : |z| < 1\}$ be the open unit disk in the complex plane C, $H(D)$ be the space of all analytic functions on D, φ be an analyticself-map of D and $u \in H(D)$. Define operators by $DW_{\varphi,u} f = (u \cdot f \circ \varphi)'$ and $W_{\varphi,u} Df = u \cdot f' \circ \varphi$ for $f \in H(D)$. In this paper we characterize bounded operators $DW_{\varphi,u}$ and $W_{\varphi,u} D$ from weighted Bergman space to Zygmund-type space, Bloch-type space and Bers-type space on the open unit disk. We also give some sufficient and necessary conditions for these operators to be compact operators in terms of inducing maps φ and u.

Keywords: Weighted Bergman space，Bers-type space，Bloch-type space，Zygmund-type space, weighted composition operator.

Title:**On Volterra composition operators from Bergman-type spaces to Bloch-type spaces**

Authors: Zhijie Jiang

Sources: *Czechoslovak Mathematical Journal,* 2011，61 (136) , 993–1005（SCI）.

Abstract: Let φ be an analytic self-mapping of D and g an analytic function on D. In this paper we characterize the bounded and compact Volterra composition operators from the Bergman-type space to the Bloch-type space. We also obtain an asymptotical expression of the essential norm of these operators in terms of the symbols g and φ.

Keywords: Bergman-type space, Volterra composition operator, Bloch-type space, little Bloch-type space, essential norm.

Title: **Weakly compact composition operators on Bergman spaces of the upper half plane**

Authors: Zhijie Jiang

Sources: Journal of computational analysis and applications, 2011, 6(13)：1075-1080（SCI）

Abstract: Let $\pi_+ = \{z \in C : \operatorname{Im} z > 0\}$ denote the upper half plane in the complex plane C. In this paper we prove that there are no weakly compact composition operators on Bergman spaces $A^p(\pi_+)$ for all p $(1 \le p < \infty)$.

Keywords: Composition operator, Bergman space, weakly compact operator.

Title: **Sensitivity analysis for generalized nonlinear parametric (*A*, η, *m*) -maximal monotone operator inclusion systems with relaxed cocoercive type operators**

Author：H.Y. Lan

Sources: *Nonlinear Anal. Series A: TMA.*, 2011, 74(2): 386–395 (SCI)

Abstract: By using Lim's inequalities, Nalder's results, the new parametric resolvent operator technique associated with (A, η, m)-maximal monotone operators, in this paper, the existence theorem for a new class of generalized nonlinear parametric (A, η, m)-maximal monotone operator inclusion systems with relaxed cocoercive type operators in Hilbert spaces is analyzed and established. Our results generalize sensitivity analysis results of other recent works on strongly monotone quasi-variational inclusions, nonlinear implicit quasi-variational inclusions and nonlinear mixed quasi-variational inclusion systems in Hilbert spaces.

Keywords: Sensitive analysis, relaxed cocoercive operator, generalized nonlinear parametric, (A, η, m)-maximal monotone operator inclusion system, parametric resolvent operator technique, existence and continuity theorem.

Title: **Existence and iterative approximations of solutions for nonlinear implicit fuzzy resolvent operator systems of (A, η)-monotone type**

Author: H.Y. Lan, Y.M. Li and J.F. Tang

Sources: *J. Comput. Anal. Appl.*, 2011, 13(2):335- 344 (SCI)

Abstract: The purpose of this paper is to introduce a new system of nonlinear implicit fuzzy resolvent operators of (A, η)-monotone type and to develop a new iterative algorithm to approximate the solutions of the nonlinear implicit fuzzy resolvent operator systems. Further, by using Rus's results and and some new analytic techniques, we also prove the existence of solutions and the convergence of the sequences generated by the algorithms. The results presented in this paper improve and generalize the corresponding results of recent works.

Keywords: Nonlinear implicit fuzzy resolvent operator, system, (A, η)-monotone and relaxed cocoercive operator, new iterative algorithm, existence and convergence.

Title: **An over-relaxed (A, η, m)-proximal point algorithm for system of**

nonlinear fuzzy-set valued operator equation frameworks and fixed point problems

Author: H.Y. Lan, X. Wang, T.J. Xiong and Y.M. Xiang

Sources: Y. Tang, V.-N. Huynh, and J. Lawry (Eds.): *2011 International Symposium on Integrated Uncertainty in Knowledge Modelling and Decision Making*, LNAI 7027, pp. 133-142, Hangzhou, China, October, Springer-Verlag Berlin Heidelberg, 2011. (EI)

Abstract: In order to find the common solutions for nonlinear fuzzy-set valued operator equations and fixed point problems of Lipschitz continuous operators in Hilbert spaces, the purpose of this paper is to construct a new class of over-relaxed (A, η, m)-proximal point algorithm framework with errors by using some results on the resolvent operator corresponding to (A, η, m)-maximal monotonicity. Further, the variational graph convergence analysis for this algorithm framework is investigated. Finally, some examples of applying the main result is also given. The results presented in this paper improve and generalize some well known results in recent literatures.

Keywords: (A, η, m)-maximal monotonicity, nonlinear fuzzy-set valued operator equation and fixed point problem, Over-relaxed (A, η, m)-proximal Point Algorithm with errors, variational graphical convergence.

Title: **On over-relaxed proximal point algorithms for generalized nonlinear operator equation with (A, η, m)-monotonicity framework**

Authors: Fang Li, Heng-you Lan, Zejun Li and Tingjian Xiong

Sources: *Proceedings 2011 World Congress on Engineering and Technology* (CET 2011) 2011 Vol. 2 （46-49）（EI）

Abstract: In this paper, a new class of over-relaxed proximalpoint algorithms for solving nonlinear operator equationswith (A, η ,m)-monotonicity framework in Hilbert spaces isintroduced and studied. Further, by using the generalizedresolvent operator technique associated with the (A,η,m)

-monotone operators, the approximation solvability of theoperator equation problems and the convergence of iterativesequences generated by the algorithm are discussed. Our results improve and generalize the corresponding results in theliterature.

Keywords: New over-relaxed proximal point algo-rithm, nonlinear operator equation with (A, η ,m)-monotonicityframework, generalized resolvent operator technique, solvabilityand convergence.

Title: **Industrial Computerized Tomography Images Segmentation Based on Cellular Neural Networks**

Authors: Chang Jiang Liu, Xu Lin Wu.

Sources: *Applied Mechanics and Materials*, 2011, Vol.66-68:2228-2235 (EI)

Abstract: In this paper, we aimed at segmenting industrial computerized tomography images grounded in edge information. Most researchers focused on the edges of binary images using cellular neural network. We have expanded the scope to gray level images. Thus two groups of cellular neural network were designed to obtain closed edges. One was used to convert the gray level images to binary ones, the other to extract edges. In addition, we combined with contrastenhancement. Subsequently, tracing the obtained edges accomplished segmentation. Simulation experiments on a series of engine images demonstrate our methods can not only batch process threshold segmentation without choice threshold, but also extract the fine edges .A comparison to state-of-the-art methods show ours are easy to follow with good results.

Keywords: Cellular Neural Network (CNN), Contour Tracing, Industrial Computerized Tomography (ICT), Segmentaion

Tital: **On the Rate of Convergence of STSD Extremes**

Authors: Fuming Lin; Xinhua Zhang; Zuoxiang Peng; Yingying Jiang

Sources: Communications in Statistics - Theory and Methods, 2011, 10(40):

1795-1806(SCI)

Abstract: Denote M_n the largest of n independent STSD variables. This article shows the rate of convergence of $(M_n - b_n)/a_n$ to the extreme value distribution $\exp(-e^{-x})$ which is characterized by the supremum metric.

Keywords: Extreme value distribution; Maximum; Rate of convergence; Shorttailed symmetric distributions.

Tital: **Almost sure limit theorems for the maxima of some strongly dependent Gaussian sequences**

Authors: Fuming Lin , Yu Fu, Yingying Jiang

Sources: *Computers and Mathematics with Applications,* 2011, 2 (62) 635-640(SCI)

Abstract: We proved some almost sure limit theorems for standard strongly dependent Gaussian sequences in nonstationary cases under some mild conditions.

Keywords: Almost sure limit theorem, Strongly dependent Gaussian sequence, Nonstationary Gaussian sequence

Title: **On the F_p-Normal Subgroups of Finite Groups**

Authors: Shitian Liu and Deqin Chen

Sources: *Proceeding of World Academy of Science, Engineering and Technology,* 2011, 78: 727-732. (EI)

Abstract: Let G be a finite group, and let F be a formation of finite group. We say that a subgroup H of G is F_p-normal in G if there exists a normal subgroup T of G such that HT is a permutable Hall subgroup of G and

$(H \cap T)H_G / H_G$ is contained in the F-hypercenter $Z_\infty^F(G/H_G)$ of G/H_G. In this note, we get some results about the F_p-normal subgroups and then use them to study the structure of finite groups.

Keywords: Finite groups, F_p-Normal Subgroup, Sylow subgroup, Maximal subgroup.

Title: **On recognition and oil-volume marking for tilted oil tank based on least squares method**

Author：Z.S. Liu, H.Y. Lan, C. Liu and Z. Wang (Corresponding author：H.Y. Lan)

Sources: Yanxiang He: *Proceedings 2011 International Conference on Computational Intelligence and Software Engineering*, Vol. 2, PP. 1272-1275, Wuhan, December 09-11, Institute of Electrical and Electronic Engineers, Inc. 2011. (EI)

Abstract: In this article, the mathematical model of the oil volume with respect to the displayed height of oil, the vertically tilting parameter (α) and the horizontally tilting parameter (β) is first constructed. Then, by using least squares method with the idea of variable step search method, Matlab software and the empirical data, the tilted parameters of oil tank are estimated. Finally, the marking number of the tank-volume meter is given, which can be used to the management of gas station and other practical problems.

Keywords: Oil tank, titled recognition, oil-volume, least

Title: **The Structure and Invariance of Unstable Manifolds on Linear Ordered Topological Space**

Authors: Tianxiu Lu, Peiyong Zhu

Sources: *ICCDA 2011 , Institute of Electrical and Electronics Engineers, Inc. Singapore.* 2011.5: 169-172. (EI)

Abstract. Unstable manifolds of continuous self-mapping on *completely densely ordered linear ordered topological space* (for short, CDLOTS) are discussed. First, the basic structure of unstable manifold is showed. Next,

considering unstable manifolds or their closures and their iteration, some invarant are obtained.

Keywords: Unstable manifold, periodic point, continuous self-map, CDLOTS.

Title: **Robust H_∞ DOF control for uncertain T-S fuzzy neutral systems**

Authors: Wenpin Luo, Jun Yang, ShoumingZhong, Li Xiang

Source: International Journal of Control, Automation, and Systems

(2011)9(3):525-533(SCI)

Abstract: This paper investigates the problem of robust H∞ dynamic output-feedback (DOF) control for a class of uncertain T-S fuzzy neutral systems with linear fractional parametric uncertainties. The aim is to design a full-order fuzzy DOF controller that ensures asymptotic stability of the closed-loop system and guarantees a prescribed H∞ performance level on disturbance attenuation for all admissible uncertainties. Based on the Lyapunov-Krasoviskii functional and the Barbalat lemma, delay-dependent sufficient conditions for the solvability of this problem are presented in terms of LMIs. Finally, a simulation example is provided to demonstrate the effectiveness and applicability of the proposed method.

Keywords: Dynamic output-feedback (DOF) control, neutral systems, linear matrix inequalities (LMIs), Lyapunov-Krasovskii functional (LKF), Takagi-Sugeno (T-S) fuzzy systems.

Title: **Acoustic features comparision from Chinese Speech Emotion Recognition**

Authors: Jian Fang Tang,Hai Yan Zhang.

Sources:*2011 International Conference on Computer Application and System* Modeling (ICCASM 2011) :2748-2750. (EI)

Abstract: Speech emotion recognition is a new research focus.Many researchers are commitied to the direction.In this paper,it analyze correlated features and

compare these acoustic features foundation in different emotion recognition and compare the founction of all kinds of attributes by use of artificial neural networks. Finally,it find happiness,angriness represent similar features. However,sadness has opposite effect. Horror and surprisness is difficult to recognize.Other emotion is easy to recognize form speech.All emotion recognition from speech has some same features.

Keywords: speech emotion recognization, features extraction, emotion classification

Title: **Convergence analysis of overlapping Schwarz waveform relaxation algorithm for reaction diffusion equations with time-delay**

Authors: Shu-Lin Wu, Cheng-Ming Huang, Ting-Zhu Huang

Sources: *IMA Journal of Numerical Analysis* , 06-2011 (SCI)

Abstract: In this paper we study convergence of the overlapping Schwarz waveform relaxation (OSWR) algorithm for reaction-diffusion equations with time delay. We first prove linear convergence of the algorithm in the continuous case on infinite time intervals at a rate depending on the size of the overlaps, the time-delay argument and the coefficients of the equations. For the special case, i.e., the heat equation with a fixed time delay, the convergence rates of the OSWR algorithm presented in this paper are sharper than the existing results. We then prove that the *linear convergence* remains valid after spatial discretization and the convergence rates are robust with respect to mesh refinement. The convergence behaviour of the algorithm with an arbitrary number of subdomains is also investigated and it is shown that the convergence rate deteriorates with as number of subdomains increases and ameliorates as the overlap size increases.

Keywords: overlapping Schwarz waveform relaxation, reaction-diffusion equations, time delay, heat equation

Title: **Global dissipativity of delayed neural networks with impulses**

Authors: Shu-Lin Wu, Ke-Lin Li, Ting-Zhu Huang

Sources: *Journal of the Franklin Institute*, 2011, Vol. 348, pp. 2270-2291 (SCI)

Abstract: In this paper, we investigate the problem of global exponential dissipativity of neural networks with variable delays and impulses. The impulses are classified into three classes: input disturbances, stabilizing and “neutral” type—the impulses are neither helpful for stabilizing nor destabilizing the neural networks. We handle the three types of impulses in a uniform way by using the excellent ideology introduced recently. To this end, we propose new techniques which coupled with more general Lyapunov functions to realize the ideology and it is shown that they are more effective. Exponential dissipativity conditions are established in terms of linear matrix inequalities (LMIs) and these conditions can be straightforwardly reduced to exponential stability conditions. Numerical results are given to show that the obtained conditions are effective and less conservative than the existing ones.

Keywords: dissipativity, neural networks, impulse, time delay, LMIs

Title: **Exponential stability of static neural networks with time delay and impulses**

Authors: Shu-Lin Wu, Ke-Lin Li, Ting-Zhu Huang

Sources: *IET Control Theory and Application*, 2011, Vol.5, pp. 943-951 (SCI)

Abstract: In this study, the authors investigate the problem of global exponential stability of static neural networks with time delay and impulses. Three types of impulses are studied: the impulses are input disturbances; the impulses are `neutral' type, that is, they are neither helpful for stability of neural networks nor destabilising; and the impulses are stabilising. For each type of impulses, by using Lyapunov function and Razumikhin-type techniques, sufficient conditions for global exponential stability are established in terms of linear matrix inequalities with respect to suitable classes of impulse time sequences. The new sufficient conditions can explicitly reveal the effects of time delay, impulses etc., on the stability. Numerical results are given to show the less conservatism of the obtained criteria compared with the existing ones.

Keywords: static neural networks, neural network time delay, neural network

impulse, global exponential stability, Lyapunov function, Razumikhin-type technique, LMIs

Title: **Optimization model of oil-volume marking with tilted oil tank**

Author：W. Xie, H.Y. Lan, X.J. Wang, H.Z. Cui and J. Chen (Corresponding author：H.Y. Lan)

Sources:M.Q. Zhou (Eds.): *Proceedings 2011 World Congress on Engineering and Technology*, Vol. 2, PP. 233-236, Shanghai, October, Institute of Electrical and Electronics Engineers, Inc., 2011. (EI)

Abstract: In this paper, the relationship model between the oil volume and the vertically tilting parameter (α), the horizontally tilting parameter (β) and the displayed height of oil (h^*) is first con-structed when the tilted oil tank. Then, based on the data of the oil output volume at different time of day, an optimization model of oil-volume marking with tilted oil tank is established. Finally, parameters α=2.2° and β=3.05° are estimated by using nonlinear least squares method and the marking number of the tank-volume meter is given.

Keywords: Optimization model;oil tank Tilt, oil-volume Marking problem, least squares method, parameter estimation**.**

Title: **Improved density-induced support vector data description.**

Authors: Feng Yin, Guang-Xin Huang.

Sources: *International Conference on Machine Learning and Cybernetics 2011*,（2）：747-750 (EI)

Abstract: Support vector data description(SVDD) is a data description method which can give the target data set a spherically shaped description. A density-induced SVDD (D-SVDD) has been proposed to improve the SVDD. However, the dual optimization problem of the D-SVDD is not a simple optimization problem which makes the D-SVDD be not an easy data description method. This paper presents an improved density-induced

SVDD. The hyper-spherically shaped boundary of our method resorts to a well-known quadratic programming problem, thus the proposed data descrition method improves the D-SVDD.

Keywords： Support vector data description, One-class classification, Hyper-spherically shaped boundary, D-SVDD

Title: **GI/Geom/1/N/MWV queue with changeover time and searching for the optimum service rate in working vacation period**

Authors: Miaomiao Yu, Yinghui Tang, Yonghong Fu, Lemeng Pan

Sources: *Journal of Computational and Applied Mathematics*, 2011, 235(8): 2170-2184. (SCI)

Abstract: In this paper, we consider a finite buffer size discrete-time multiple working vacation queue with changeover time. Employing the supplementary variable and embedded Markov chain techniques, we derive the steady state system length distributions at different time epochs. Based on the various system length distributions, the blocking probability, probability mass function of sojourn time and other performance measures along with some numerical examples have been discussed. Then, we use the parabolic method to search the optimum value of the service rate in working vacation period under a given cost structure.

Keywords: Working vacation, Discrete-time queue, Finite buffer, Parabolic method, Optimum value

Title: **An M/Ek/1 queueing system with no damage service interruptions**

Authors: Miaomiao Yu, Yinghui Tang, Yonghong Fu, Lemeng Pan

Sources: *Mathematical and Computer Modelling*, 2011, 54(5-6): 1262-1272. (SCI)

Abstract: Motivated by a congestion problem arising in a Chinese hospital, an M/Ek/1 queueing system, where the service process is subject to no damage interruptions has been considered. When the first phase of service is completed, the service process can be interrupted with probability $1 - p$ ($0 \leq p \leq 1$) as a result of the customer leaving the service area to attend to other work. There is a finite space to accommodate the interrupted

customers in the queueing system. When the other work is completed, the customer, whose service was interrupted, will re-enter the service area and resume his interrupted service based on the non-preemptive priority rule. Using the matrix geometric method, the steady state behavior of this system is analyzed. Based on the queue length distribution, several important performance measures along with some numerical examples have been discussed. Finally, under a given cost structure, we use the direct search method to determine the optimal capacity of the space to accommodate the interrupted customers.

Keywords: Service interruption, No damage, Space to accommodate interrupted customers, Matrix geometric method

Title：**Delay-dependent exponential stability for impulsive Cohen–Grossberg neural networks with time-varying delays and reaction–diffusion terms**

Authors：Xinhua Zhang, Shulin Wu, Kelin Li

Sources: *Commun Nonlinear Sci Numer Simulat 2011，16 (3)：1524–1532* (SCI)

Abstract：In this paper, a class of impulsive Cohen–Grossberg neural networks with time-varying delays and reaction–diffusion is formulated and investigated. By employing delay differential inequality and the linear matrix inequality (LMI) optimization approach, some sufficient conditions ensuring global exponential stability of equilibrium point for impulsive Cohen–Grossberg neural networks with time-varying delays and diffusion are obtained. In particular, the estimate of the exponential convergence rate is also provided, which depends on system parameters, diffusion effect and impulsive disturbed intention. It is believed that these results are significant and useful for the design and applications of Cohen–Grossberg neural networks. An example is given to show the effectiveness of the results obtained here.

Keywords: Cohen–Grossberg neural networks; Reaction–diffusion; Impulses; Delays; Global exponential stability; Linear matrix inequality

Title：**Integro-differential inequality and stability of BAM FCNNs with time**

delays in the leakage terms and distributed delays

Authors：Xinhua Zhang and Kelin Li

Sources: *Journal of Inequalities and Applications 2011, 2011:43* (SCI)

Abstract：**I**n this paper, a class of impulsive bidirectional associative memory (BAM) fuzzy cellular neural networks (FCNNs) with time delays in the leakage terms and distributed delays is formulated and investigated. By establishing an integro-differential inequality with impulsive initial conditions and employing M-matrix theory, some sufficient conditions ensuring the existence, uniqueness and global exponential stability of equilibrium point for impulsive BAM FCNNs with time delays in the leakage terms and distributed delays are obtained. In particular, the estimate of the exponential convergence rate is also provided, which depends on the delay kernel functions and system parameters. It is believed that these results are significant and useful for the design and applications of BAM FCNNs. An example is given to show the effectiveness of the results obtained here.

Keywords: bidirectional associative memory, fuzzy cellular neural networks, impulses, distributed delays, global exponential stability

Title: **Differences of weighted composition operators on the unit polydisk**

Authors: S. Stevic，Zhijie Jiang

Sources: *Sibirskii Matematicheskii Zhurnal,* 2011, 2(52):454–468. (SCI).

Abstract: Let φ_1 and φ_2 be holomorphic self-maps of the unit polydisk D^N, and let u_1 and u_2 be holomorphic functions on D^N. We characterize the boundedness and compactness of the difference of weighted composition operators W_{φ_1,u_1} and W_{φ_2,u_2} from the weighted Bergman space A^p_α, $0 < p < \infty$, $0 < p < \infty$, $\vec{\alpha} = (\alpha_1, \alpha_2, \cdots, \alpha_N)$, $\alpha_j > -1, j = 1, \ldots, N$, to the weighted-type space H^∞_v of holomorphic functions on the unit polydisk

D^N in terms of inducing symbols φ_1, φ_2, u_1 and u_2.

Keywords: weighted composition operator, weighted Bergman space, weighted-type space, compact operator, polydisk

Title: **Compactness of the differences of weighted composition operators from weighted Bergman spaces to weighted－type spaces on the unit ball**

Authors: S. Stevic，Zhijie Jiang

Sources: *Taiwanese Journal of mathematics*,2011，6(15):2647-2665.（SCI）.

Abstract: Let φ_1 and φ_2 be holomorphic self-maps of the open unit ball B in C^N, u_1 and u_2 be holomorphic functions on B and let weighted composition operators W_{φ_1,u_1}； W_{φ_2,u_2} ： $A^p_\alpha \to H^\infty_v$ be bounded. This paper characterizes the compactness of the difference of these operators from the weighted Bergman space A^p_α, $0 < p < \infty$, $\alpha > -1$, to the weighted-type space H^∞_v of holomorphic functions on B in terms of inducing symbols φ_1, φ_2, u_1 and u_2. For the case $p > 1$ we find an asymptotically equivalent expression to the essential norm of the operator.

Keywords: Weighted composition operator, weighted Bergman space, weighted-type space, essential norm, compact operator.

Title: **Geom/G_1,G_2/1/1 repairable Erlang loss system with catastrophe and second optional service**

Authors: Yinghui Tang, Miaomiao Yu, Cailiang Li

Sources: *Journal of system science and complexity*, 2011, 24(3): 554-564. (SCI)

Abstract: This paper studies a single server discrete-time Erlang loss system with Bernoulli arrival process and no waiting space. The server in the system is assumed to provide two different types of services, namely essential and

optional services, to the customer. During the operation of the system, the arrival of the catastrophe will break the system down and simultaneously induce customer to leave the system immediately. Using a new type discrete supplementary variable technique, the authors obtain some performance characteristics of the queueing system, including the steady-state availability and failure frequency of the system, the steady-state probabilities for the server being idle, busy, breakdown and the loss probability of the system etc. Finally, by the numerical examples, the authors study the influence of the system parameters on several performance measures.

Keywords: Catastrophe, Discrete supplementary variable technique, Erlang loss system, Repairable queueing system, Second optional service

Title: **Recursive solution of queue length distribution for Geo/G/1 queue with single server vacation and variable input rate**

Authors: Chuanyi Luo, Kaili Xiang, Miaomiao Yu, Yinghui Tang

Sources: *Computers and Mathematics with Applications*, 2011, 61(9): 2401-2411. (SCI)

Abstract: In this paper we consider discrete time Geo/G/1 queue with single server vacation and variable input rate. Using renewal process, probability decomposition technique and u-transform, we derive the recursive expressions of the queue length distributions at epochs n−, n+, and n. The results obtained in this paper indicate that the equilibrium queue length distribution no longer follows the stochastic decomposition discipline. Furthermore we derive the important relations between equilibrium queue length distributions at different epochs (n−, n+, n).

Keywords: Discrete time queue, Single server vacation, Recursive expression, Variable input rate

Title: **An inverse eigenproblem and an associated approximation problem for generalized reflexive and anti-reflexive matrices.**

Authors: Guang-Xin Huang, Feng Yin.

Sources: *Journal of Computational and Applied Mathematics 2011*, 235(8): 2888-2895. （SCI）

Abstract: In this paper, we first give the existence of and the general expression for the solution to an inverse eigenproblemdefined as follows: given a set of real n-vectors $\{x_i\}_{i=1}^m$ and a set of real numbers $\{\lambda_i\}_{i=1}^m$, and an n-by-n real generalized reflexivematrix A (or generalized anti-reflexive matrix B) such that $\{x_i\}_{i=1}^m$ and $\{\lambda_i\}_{i=1}^m$ are the eigenvectors and eigenvalues of A (or B), respectively,we solve the best approximation problemfor the inverse eigenproblem. That is, given an arbitrary real n-by-n matrix $\tilde{A}$, we find a matrix $A_{\tilde{A}}$ which is the solution to the inverse eigenproblem such that the distance between $\tilde{A}$ and $A_{\tilde{A}}$ is minimized in the Frobenius norm. We give an explicit solution and a numerical algorithm for the best approximation problem over generalized reflexive (or generalized anti-reflexive)matrices. Two numerical examples are also presented to show that our method is effective.

Keywords： Inverse eigenproblem, Approximation problem, Generalized reflexive matrix, Generalized anti-reflexive matrix, Moore–Penrose inverse

Title: **Finite non-nilpotent generalizations of Hamiltonian groupsFinite groups with SS-quasinormal subgroups**

Authors: Zhencai Shen, Wujie Shi and Jinshan Zhang

Sources: *Bulletin of the Korean Mathematical Society,* 48 (2011), 1147-1155. (SCI)

Abstract: In J. Korean Math. Soc, Zhang, Xu and other authors investigated the following problem: what is the structure of finite groups which have many normal subgroups? In this paper, we shall study this question in a more general way. For a finite group G, we define the subgroup $A(G)$ to be intersection of the normalizers of all non-cyclic subgroups of G. Set $A_{0}= 1$. Define $A_{i+1}(G)/A_{i}(G)= A(G/A_{i}(G))$ for for $i> 1$. By A_{∞} denote the terminal term of the ascending series.

It is proved that if $G= A_{\infty}$, then the derived subgroup G' is nilpotent. Furthermore, if all elements of prime order or order 4 of G are in $A(G)$, then G is alsonilpotent.

Keywords: finite groups, solvable groups, cyclic group.

Title: **Recognition of alternating group A_{16} by its noncommuting graph**

Authors: Deqin Chen, Shitian Liu, and Wujie Shi

Sources: *Elixir Appl. Math.* 2011, 34, 2380-2390

Abstract: Abdollahi, Akbari, and Maimani put forward a conjecture named AAM's Conjecture as follows. If M is a finite nonabelian simple group and G is a group such that $\nabla(G) = \nabla(M)$, then $G \cong M$. In this note, we prove that if G is a finite nonabelian simple group with $\nabla(G) = \nabla(A_{16})$, then $G \cong A_{16}$, where A_{16} is the alternating group of degree 16.

Keywords: Alternating group, Noncommuting graph, Element order, Simple group.

Title: **Schatten Class Weighted Composition Operators on the Fock Space $F_{\partial}^{2}(C^{N})$**

Authors：Daoyuan Du

Sources: *International Journal of Mathematical Analysis*,2011,13（5）,625--630

Abstract: Weighted composition operators have been related toproducts of composition operators and their ad-joints and to isome-tries of Hardy spaces. In this paper, we obtain a complete descriptionof Schatten class weighted composition operators on Fock space.

Keywords: Fock space, weighted composition operator, Schatten class.

Title: **Composition operators on Bergman space of the upper half plane**

Authors: Daoyuan Du，Zhijie Jiang

Sources: *Global Journal of Pure and Applied Mathematics,* Vol.7,no.3,337-343

Abstract： Let $\pi_+ = \{z \in C : \mathrm{Im}\, z > 0\}$ be the upper half plane in the complex plane C. In this paper we study the composition operators on Bergman spaces $A^p(\pi_+)$ and

prove that when $1 < p < \infty$, there are no weakly compact composition operators on Bergman space $A^p(\pi_+)$.

Keywords: Composition operator, Bergman space, weakly compact operator.

Title: **Multiple Solutions for a Fourth Order Equation**

Authors: Lin Li

Sources: *Advances in Theoretical and Applied Mathematics* , 2011, 6(4): 511-514

Abstract: In this paper, we establish the existence of at least three solutions to a Navier boundary problem involving the p-biharmonic equation. The technical approach is mainly base on a three critical points theorem of B. Ricceri.

Keywords: p-biharmonic; Three critical points theorem

Title: **Multiplicity Results For A 2-Dimensional Navier Problem**

Authors: Lin Li

Sources: *International Journal of Applied Mathematics*, 2011, 24(3): 459-467

Absract: In this paper, the existence of at least three weak solutions for Navier problem

$$\begin{cases} -\Delta\left(|\Delta u|\Delta u\right) = \lambda f(x,u) + \mu g(x,u), & x \in \Omega \\ u = \Delta u = 0, & x \in \partial\Omega \end{cases}$$

where $\Omega \subset \mathbb{R}^2$ is

non-empty bounded open set with smooth boundary $\partial\Omega$, λ, $\mu \in [0,+\infty)$ and f, $g:\Omega\times\mathbb{R}\to\mathbb{R}$ are L^1-Caratheodory functions, is established. The approach is based on variational methods and critical points.

Keywords: three solutions, critical point, multiplicity results, Navier problem

Title：**Global exponential stability of BAM fuzzy cellular neural networks with distributed delays and impulses**

Authors：Kelin Li and Liping Zhang

Sources: *Journal of Appllied Mathematics & Informatics,* 2011, 29 (1-2): 211 – 225.

Abstract：In this paper, a class of bi-directional associative memory (BAM) fuzzy cellular neural networks with distributed delays and impulses is formulated and investigated. By employing an integro-di®erential inequality with impulsive initial conditions and the topological degree theory, some su±cient conditions ensuring the existence and global exponential stability of equilibrium point for impulsive BAM fuzzy cellular neural networks with distributed delays are obtained. In particular, the estimate of the exponential convergence rate is also provided, which depends on the delay kernel functions and system parameters. It is believed that these results are signi¯cant and useful for the design and applications of BAM fuzzy cellular neural networks. An example is given to show the e®ectiveness of the results obtained here.

Keywords: Bi-directional associative memory, fuzzy cellular neural networks, impulses, distributed delays, global exponential stability.

Title: **Some New Criteria on the Supersolvability of Finite Groups**

Authors: Zishan Liu, and Shitian Liu

Sources: Int. J. Pure Appl. Sci. Technol., 2011, 5(2), 119-130

Abstract: In this paper some conditions for supersolvability of finite groups G are given under the assumption that certain subgroup of G is weakly c* -normal in a group.

Keywords: Weakly c* -normality, Supersolvability, s -quasinormally embedded.

Title: **The orbit spaces of linearly ordered systems on continuums**

Authors: Peiyong Zhu, Jianjun Wang, Tianxiu Lu

Sources: J*ournal of Applied Mathematics & Bioinformatics.* 2011, 1(1): 187-193

Abstract. In this paper, the concept of an orbit space is generalized from a discrete dynamical system (X, f) to a linearly ordered set $\{X_\alpha, \pi_\alpha^\beta, \Gamma\}$ and it is shown that a general orbit space is a comtinuum if each X_α is a comtinuum in a linearly ordered system $\{X_\alpha, \pi_\alpha^\beta, \Gamma\}$. As a special case, it is obtained that the orbit space of any discrete dynamical system (X, f) is a comtinuum if X is a comtinuum.

Keywords: Linearly ordered set, orbit space, compact, comtinuum.

Title: **The necessary and sufficient conditions of mixing of continuous self-mappings**

Authors: Tianxiu Lu, Peiyong Zhu

Sources: *ICMO 2011，World Academic Press, England.* 2011.7: 162-166.

Abstract. The mixing of continuous self-mapping is discussed. First, a necessary and sufficient condition of mixing of interval maps is extended to 2-dimension or high dimensional Euclidean space and completely densely ordered linear ordered topological space. Then, a necessary condition of weak mixing of interval maps is obtained. At last, the relation between mixing of maps and mixing of product maps is showed.

Keywords: mixing, weak mixing, continuous self-mapping.

Title: **Model of Migration Behavior of Flame Retardants Based on Rough**

Set-Neural Network

Authors: Bangrong Wang, Huanglin Zeng, Chongzhong Chen

Sources: *ICCDA2011*, 2011,(V3): 516 -519

Abstract: This paper is devoted to some studies on rough set-neural network relationship model. According to characteristics of polyurethane flame retardant, data pre-processing is proposed based on rough set. After using dynamic recurrent neural network to simulate, a neural network model is set up for analysis on polyurethane flame retardant migration with variety of factors. The experiment results show that the rough set-neural network relationship model has a higher prediction accuracy.

Keywords: rough set; neural network; flame retardant; polyurethane flam

Title: **Finite groups whose irreducible characters vanish on only elements of prime power**

Authors: Jinshan Zhang, Zaixin Li and Zhencai Shen

Sources: *International Journal of Algebra*, 21 (2011), 1031-1038.

Abstract: The aim of this note is to investigate the finite groups whose irreducible characters vanish only on elements of prime power order. Interesting, we give a new characterization of A_{5}, where A_{5} is the alternating group of 5.

Keywords: finite groups, characters, zeros of characters.

Title: **Finite groups with a maximal nilpotent subgroup.**

Authors: Runshi Zhang, Deqin Chen, and Shitian Liu

Sources: *Research Journal of Algebra,* 2011, 1(8), 171-175.

Abstract: A solvability condition for finite groups with maximal nilpotent subgroups is given as follows. Let G be a finite group and M a maximal nilpotent subgroup of G . If P is a Sylow 2-subgroup of M and every subgroups of P of order 2 or 4 is pronormal inG , then G is solvable.

Keywords: Maximal nilpotent subgroup, Solvable group, Pronormal subgroups

Title: **Finite group whose irreducible characters vanishon prime power order**

Authors: Guangju Zeng, Jinshan Zhang , Zhencai Shen

Sources: *International Journal Algebra* ,Vol.5 ,2011,no.21,1031-1038

Abtract: The aim of this note is to study the finite groups whose every irreducible characters vanish on elements of prime power order

Keywords: finite groups , character, zeros

Title: **从上半平面 Hardy 空间到几个解析函数空间上的一类算子**

Authors: 杜道渊

Sources: *四川大学学报*,2011 第 3 期（48 卷），509—514 (中文核心)

Abstract: 受到函数空间上算子理论研究的最新成果的启发，本文作者刻画了从上半平面空间 Hardy 到 Bers 型、Bloch 型、Zygmund 型空间上的微分算子和加权复合算子乘积的有界性。

Keywords: Hardy 空间；微分算子和加权复合算子的乘积；Bers 型空间；Bloch 型；Zygmund 型空间

Title: **萤石结构 TiO_2 热力学性质的第一性原理计算**

Authors: 胡燕飞，袁玉全

Sources: *计算物理*, 2011，28（1）：105-110 (中文核心)

Abstract: 利用第一性原理平面波赝势密度泛函理论研究 TiO2 的结构,其零温零压下的晶格常数和常温下的体弹模量及其对压强的一阶导数的计算结果与实验值和其他理论计算结果相符.通过准谐德拜模型,获得了相对晶格常数、相对体积、体弹模量、热膨胀系数、热容与温度和压强的关系.

Keywords: 密度泛函理论；准谐德拜模型；热力学性质；

Title:**向量值Hardy空间上的复合算子**

Authors:江治杰，柏宏斌，杨勇，

Sources:*四川大学学报（自然科学版）*,2011,6(48):1257-1260. (中文核心)

Abstract: 设D是复平面C中的开单位圆盘，φ是D到自身的解析映射，定义向量值Hardy空间H^2(H)上的复合算子$C_\varphi f = f\circ\varphi$，$f \in H^2$(H)．本文首先刻画了具有闭值域的复合算子，在此基础上证明了$C_\varphi f = f\circ\varphi$相似于一等距算子当且仅当$\varphi$是在$D$中有不动点的内函数．最后，讨论了Fredholm复合算子.

Keywords:向量值Hardy空间； 复合算子； 闭值域； Fredholm性质.

Tital: **含趋势项强相依非平稳序列的两个重要分布**

Authors: **蔺富明 王莉莉 彭作祥**

Sources: *应用数学学报* 2011，1 期 (34 卷)，页码 180-189 (中文核心)

Abstract: $\{\eta_n\}$为平稳标准化正态序列，相关系数$r_{|i-j|} = Cov(\eta_i, \eta_j)$, 若$r_n \log n \to \infty$时，Leadbetter[1]等得到了序列最大值的渐近分布。本文考虑非平稳带有趋势项序列$\{\eta_n\}$，得到了序列最大值的渐近分布和最大值与部分和的联合渐近分布。

Keywords: 非平稳正态序列，最大值与部分和，渐近分布

Title: **有限群的π-拟正规嵌入子群**

Authors: 苏跃斌，许文俊

Sources:*四川师范大学学报（自然学科版）*, 2011，34(6):841-843 (中文核心)

Abstract: 设 G 是有限群,称 G 的子群 H 在 G 中 π-拟正规嵌入,如果对于|H|的每个素因子 p,H 的 Sylowp-子群也是 G 的某个 π-拟正规子群的 Sylow p-

子群.利用子群的π-拟正规嵌入性,得到了有限群 G 为 p-幂零群的一些充分条件:设 G 是有限群,P 是 G 的一个 Sylow p-子群,其中 p 是|G|的一个素因子且使得(|G|,p-1)=1.若 P 的所有极大子群皆在 NG(P)中 π-拟正规嵌入且 NG(P)'也在 G 中 π-拟正规嵌入,则 G 为 p-幂零群.推广并加深了一些已知结果.

Keywords: 有限群; 极大子群; 正规化子; p-幂零; π-拟正规嵌入;有限群; 极大子群; 正规化子; p-幂零; π-拟正规嵌入;

Title: **非扩张映射粘性逼近的强收敛性**

Authors: 王帮容，闻道君

Sources: *数学的实践与认识*，2011,12,(41):216-221 (中文核心)

Abstract: 在具有一致 Gateaux 可微范数的 Banach 空间中，研究了一个逼近非扩张映射不动点的粘性逼近方法，运用 Banach 极限推导了该逼近方法收敛的充分条件，并通过对该粘性逼近方法的修正互补减少了收敛分析中的限制条件。

Keywords:非扩张映射；不动点；粘性逼近；Banach 极限；充分条件

Title: **Parareal 算法的均方稳定性分析**

Authors: 吴树林 王志勇 黄乘明

Sources: *计算数学*, 2011, Vol. 33, pp.113-124 (中文核心期刊)

Abstract: Parareal 算法是一种非常有效的实时并行计算方法. 与传统的并行计算方法相比,该算法的显著特点是它的时间并行性 | 先将整个计算时间划分成若干个子区间,然后在每个子区间内同时进行计算. Parareal 算法收敛速度快，并行效率高，且易于编程实现，从 2001 年由 Lions,Maday 和 Turinici 等人首次提出至今，在短短的几年间得到了广泛的研究和应用. 最近，Parareal 算法在随机微分方程数值解中的应用也得到了一些学者的关注. 本文中，我们研究 Parareal 算法在随机微分方程数值解中的均方稳定性，分析保持算法稳定的充分性条件. 通过分析，我们得到了如下结论: a)Parareal 算法在有限时间区间内是超线性收敛的; b)在无限时间区间内，该算法是线性收敛的. 最后，通过数值试验，我们验证了本文中的理论结果.

Keywords: Parareal 算法，并行计算，稳定性，超线性收敛，线性收敛

Title: **具有负顾客到达和 RCH 移除策略的 GI/D-MSP/1/N 离散时间排队系统**

Authors: 余砂妙, 唐应辉, 付永红, 刘强国

Sources: *系统工程理论与实践*, 2011, 31(9): 1753-1762. (EI)

Abstract: 综合运用补充变量方法和基于条件概率矩阵迭代的嵌入Markov链方法研究了具有负顾客到达和RCH 移除策略的离散时间GI/D一MSP/1/N排队系统. 获得了稳态情形下正顾客到达前夕, 任意时隙分点以及外部观测时刻的三种队长分布. 并进一步讨论了可入系统正顾客的等待时间分布. 最后通过几个特殊情形下的数值算例验证了计算方法理论分析的正确性.

Keywords: 补充变量方法, 嵌入Markov链, 离散时间Markov服务过程, 负顾客, RCH移除策略

Title: **具有中途准入机制和多重休假的离散时间 GI/Geom(a,b)/1/N 早到排队系统**

Authors: 余砂妙, 唐应辉, 付永红,

Sources: *应用数学学报*, 2011, 34(5): 853-872. （中文核心）

Abstract: 运用补充变量方法和嵌入 Markov 链方法讨论了一个具有批量服务中途准入机制的离散时间多重休假排队系统. 利用一种有效的数值迭代算法获得了系统中三种时刻的队长分布.进一步, 使用不同时刻的队长分布, 通过数值化方法研究了系统参数对阻塞概率, 批量服务中途准入概率, 顾客在缓冲空间中平均等待时间等几类重要性能指标的影响.

Keywords: 离散时间排队, 批量服务中途准入机制, 补充变量方法, 嵌入 Markov 链

Title: **延迟多重休假离散时间的 GeomX/G/1 可修排队系统----一些排队指标**

Authors: 唐应辉, 余砂妙, 李才良, 黄蜀娟, 云曦

Sources: *数学物理学报*, 2011, 31A(2): 546-558. （中文核心）

Abstract: 该文首次考虑延迟多重休假离散时间成批到达的 Geomx/G/1 可修排队系统, 在假定到达间隔时间和服务台的寿命服从几何分布, 而服务时间, 延迟休假时间, 休假时间和服务台失效后的修理时间均服从一般离散分布下, 通过引进“服务员忙期”和使用全概率分解技术, 从任

意初始状态 i (i,=0,1,...)出发，研究了系统在任意时刻队长的瞬态性质，导出了队长瞬态分布的 Z 一变换，其次研究了系统在任意时刻队长的稳态分布，获得了稳态分布的递推表达式，进一步也得出了系统稳态队长的随机分解结果.特别地，通过该文可直接获得一系列特殊的离散时间排队系统相应的结果.

Keywords: 离散时间排队, Geomx/G/1，可修，瞬态分布，稳态分布，随机分解

Title: **带启动时间的 N-策略 M/G/1 排队系统的队长**

Authors: 唐应辉，蒲会，余玢妙

Sources: *系统工程理论与实践*, 2011, 31(1): 131-137. (EI)

Abstract: 考虑带启动时间的 N 一策略 M/G/1 排队系统，从任意初始状态出发，直接研究了系统队长的瞬态分布和稳态分布．通过引进的“服务员忙期”，使用全概率分解技术和拉普拉斯变换，导出了在任意时刻 t 队长的瞬态分布的拉普拉斯变换的表达式，进一步获得了有重要应用价值的稳态分布的具体的递推式子，以及稳态队长的随机分解结果．特别地，还直接获得了一些特殊排队系统的更实用的稳态队长分布的递推表达式.

Keywords: N--策略排队，启动时间，队长分布，随机分解，全概率分解技术

Title：**格蕴涵代数与正则 FUZZY 蕴涵代数**

Authors：白利军

Sources：兰州石化职业技术学院学报，11（02）：66-68

Title：**格蕴涵代数的对偶性质**

Authors：白利军

Sources：宜宾学院学报，11（06）：11-13

Title：**格蕴涵代数与 Heyting-代数之间的关系**

Authors： 白利军，齐磊磊

Sources：兰州石化职业技术学院学报，11（03）：71-73

Title：**基于灰色系统理论的旅游需求预测**
Authors：柏宏斌，李川江
Sources：旅游纵览，2011（11）

Title： **有限群的正规 P-补的一些结论**
Authors： 陈德勤
Sources： 四川理工学院学报，24(3):275-277

Title：**基于 BP 神经网络自贡房地产价格走势预测**
Authors： 杜道渊，柏宏斌，周锋
Sources：四川理工学院学报，24（3）：366-369

Title：**基于 Matlab 机群的分布式并行图像匹配算法**
Authors： 高媛媛，蔡乐才，刘强国
Sources：四川理工学院学报

Title：**基于 Matlab 的分布式图像序列跟踪系统**
Authors： 高媛媛，刘强国
Sources：四川理工学院学报，

Title：**关于单形测度的代数讨论**
Authors： 郭时光
Sources：高师理科学刊，31(4):23-25

Title：**关于二阶微分线性方程的教学**
Authors： 郭时光
Sources：黑龙江科技信息，2011，21(7):213-213

Title： **Poisson 方程 Cauchy 问题**
Authors： 郭时光
Sources： 黑龙江科技信息，2011，32(11):247-247

Title：**无限域非齐次波动方程齐次条件 Cauchy 问题的教学**
Authors：郭时光
Sources：科技信息，2011（11):131-169

Title：**关于线性相关和通解的定义**
Authors：郭时光
Sources：科技信息，2011（31):218-218

Title：**定解问题的全线性**
Authors： 郭时光
Sources：数学学习与研究，2011(15):89-89

Title：**非齐次波动方程非齐次条件 Cauchy 问题**
Authors： 郭时光
Sources：内江科技，32(9):86-86

Title：**偏微分线性算子的教学**
Authors： 郭时光
Sources：科学与财富，2011(10):20-20

Title：**一个数学课教学实例**
Authors： 郭时光
Sources：科学与财富，2011(11)

Title：关于一些坐标形式的变换
Authors： 郭时光
Sources：东西南北，2011(4a):47-48

Title：关于无限域齐次波动方程的 **Cauchy** 问题的教学
Authors： 郭时光
Sources：知识-力量，2011(5):1-1

Title：一类相依时序的两个重要分布
Authors： 蒋莹莹
Sources：知识-力量，2011(5):1-1

Title：关于无限域齐次波动方程的 **Cauchy** 问题的教学
Authors： 郭时光
Sources：四川理工学院学报，24（3）：278-280

Title：关于无限域齐次波动方程的 **Cauchy** 问题的教学
Authors： 郭时光
Sources：知识-力量，2011(5):1-1

Title：数学课堂素质教育探索
Authors： 李泽军
Sources：成功，2011（11）：144

Title：拓扑空间中函数上（下）极限的一些性质
Authors： 卢天秀，朱培勇
Sources：四川理工学院学报，24(3):264-266

Title：关于托利切利喇叭的注记
Authors： 潘文武
Sources：才智，2011（31）

Title：特征值和特征向量与线性变换的联系
Authors： 宋云芬
Sources：教育纵横

Title：森林救火的最优数学模型
Authors： 王光清
Sources：四川理工学院学报

Title：多水平面板数据模型的估计理论及模拟研究
Authors： 王尚坤
Sources：统计与信息论坛，2011(09):16-22

Title：一类弱散射浅水波方程局部解的存在唯一性
Authors： 王英
Sources：四川理工学院学报，24（4）：396-398

Title：生态系统模型中高精度参数的确定
Authors： 徐春
Sources：北京农业

Title：对一种基于口令和时间限制的用户身份认证协议的改进
Authors： 叶俊，付宇
Sources：四川理工学院学报，24（4）：410-412

Title：**c-可补子群与有限群结构**
Authors： 易春
Sources：高等函授学报，2011

Title：**关于 ε-N 论证法的教学思考**
Authors： 余成恩
Sources：中国科技纵横，2011

Title：**“对称-奇偶法”在重积分解题中的运用技巧解析**
Authors： 余成恩
Sources：高等函授学报，四川理工学院 2011 年教学改革与教学研究论文集

Title：**生态系统模型中高精度参数的确定**
Authors： 岳健民
Sources：北京农业，2011

Title：**初等变换求逆矩阵的另一种方式**
Authors： 张润石
Sources：高师理科学刊，35（4）：38-40

Title：**线性空间的基和维数的求法**
Authors： 张润石
Sources：黑龙江科技信息，2011，36 期 12 下