

Contents

Papers

Mathematics

( $F-Z_1$ )Flowability of Matroid  $\frac{(M-Z_1)}{Z_2}$  in  $Z^+$   
..... LÜ Guo-liang, ZHAO Xiao-peng(4596)

Existence of Positive Solutions for a Predator-prey Model  
..... ZHANG Fan, LI Yan-ling(4603)

A New Hybrid Conjugate Gradient Method  
..... LIU Yu-jian,HUANG Bing-jia(4607)

Decentralized Robust Stabilization for the Large-scale Systems of  
Uncertain Interconnected Time Delay ..... WU Xiao-dong  
ZHANG Gao-min,NAN Xiao-xue(4618)

Mechanics

The Stiffness Characteristic Analysis of Negative Stiffness Struc-  
ture ..... XU Mao,FENG Jia-quan(4613)

Geology

Research and Application of Crosswell Seismic Data Explaining  
Method in Hei 95 Block ... LI Xiang-xue,HUANG Ling(4618)

Petroleum Industry Technology

Study on Mineral-catalized Aquathermolysis of Low Sulfur Heavy  
Oils ..... WEN Shou-bin, JIANG Hong(4627)

Deplinding Application of Biological Enzyme Technique in  
Screen Tule Horiyontal Well on Gas Reservoir of Volcanic Rock  
..... ZHANG Ying-an(4626)

Investigation of Method for Pipeline Leak Detection and Location  
Based on EMD and Cross-correlation  
..... MAO Hai-jie,LI Wei,FENG Xiao-lin(4632)

Communicational Technology

Variational Solution of Discontinuity Capacitance of a Coaxial  
Line Terminated in a Circular Waveguide  
..... ZHANG Wen-zheng,ZHANG Xiao-juan(4638)

A Novel Compact Tapered MCS-fed Plane UWB Antenna  
..... LIU Wen-jian, YE Liang-hua(4644)

Application of PLL and FLL in the Digital Costas Loop  
..... WU Hua-ming, SU Yan-yong, LIU Ai-jun(4650)

Computational Technology

The Design and Manufacture of Automatic Tracking Solar Device  
Based on MCU ..... WANG Hai-peng, ZHENG Cheng-cong,

XU Dan,*et al*(4655)

Study on Ontology-based Knowledge Construction of Petroleum  
Exploitation Domain  
..... DU Rui-shan,SHANG Fu-hua,WU Ya-juan(4662)

Advanced Active Shape Model Applications of Classifying Plant  
Leaves ..... ZHANG Chun-yan, SHEN Chuan-jia,  
TANG Zhong-ze,*et al*(4673)

Incremental Redundancy-based Data Distribution Scheme over  
Unidirectional Satellite Networks  
..... LU Li-ning,YU Yu-cai,LIU Cun-qing(4673)

Architectural technology

Countermeasures and Suggestions for Enhancing Seismic Capaci-  
ty of School Buildings ..... YANG Wen-wei(4698)

Traffic and Transpotation

Study on Influence of Asphalt Performance for Ultraviolet Aging  
..... LIU Hao, WANG Jia-ni, TAN Yi-qiu(4686)

The Design and Analysis of Integrated-wheel Drive and Electric  
Steering Vehicle Travelling Mechanism  
..... ZHAO Ding,CUI Wen-feng,SUN Hai-yang(4698)

Car-following Model Based on Production Rule System  
..... TAO Cheng, GONG Shu-li  
HUANG Sheng-guo,*et al*(4697)

Research and Application of Edge-cutting of Propeller Based on  
CFD Calculation ..... OU Li-jian, AN Yuan  
YE Jia-wei,*et al*(4703)

Aeronautics and Astronautics

The Time Domain Aeroelastic Analysis of Airfoil Flutter  
..... TIAN Xiao, ZHENG Yun (4708)

Research on Conceptual Design of Integrated Modular Avionics  
..... YI Jian-ping,HAN Qing(4714)

Runway Incursion Risk Assessment Model Based on HRA  
..... XU Gui-mei,HUANG Sheng-guo(4719)

Research on the Effect of the Middle Homing Information upon  
the Missiles Breaking the Centroid Jamming  
... GAO Jian-ping, CHEN Jie-bin, WANG Xiang-hui(4724)

Research Notes

Mathematics

On the Smarandache Back Concatenated Sequence with Common  
Difference 5 ..... YANG Qian-li(4739)

Cycle Extensibility and Degree Sums in Graphs	.....	LIU Chun-fang,TENG Yan,XU Xin-sheng(4739)
A Note about the Derivative Function of Product Function	.....	HE Li-zheng(4731)
Schwarz's Lemma and Its Reasening on Extending Plane	.....	QIU Jia-cai(4734)
Properties of Two Local Operators	.....	YANG Kai-fan(4736)
Existence of Solution for a Boundary Value Problem of Fractional Order	...	TIAN Cong-cong,ZHANG Mei,LIU Yan-sheng(4739)
On the Limitation of Average Value Unilateral Examination	.....	WANG Xue-qin (4743)

**Mechanics**

Nonlinear Dynamic Analysis of Heated Panels in Supersonic Flow	.....	ZHOU Liang-qiang CHEN Yu-shu,CHEN Fang-qi(4747)
--	-------	--

**Physics**

The Dispersion Relation of Rectilinear Relativistic Electron Beam-slow Wave Interaction System	...	FU Cheng-zhi(4751)
--	-----	--------------------

**Chemistry**

Research of the Uniformity of the Electric Field in Ion Mobility Spectrometer Drift Tube	.....	SHI Ying-guo DU Ming-juan(4766)
--	-------	------------------------------------

**Biology Technology**

Research on the Classifying of Unknown Cells by Pattern Recognition	.....	ZHAO Liang,HU Xing,ZOU Yang(4758)
---	-------	-----------------------------------

**Medicine**

Study on the Early Rehabilitation on Patients with Cerebral Infarction	.....	CUI Xiao-qian(4761)
--	-------	---------------------

**General Industry Technology**

Research on Selection of Water Consumption Forecast Model	.....	WANG Yuan,FENG Qian(4766)
---	-------	---------------------------

**Petroleum Industry Technology**

Finite Element Analysis of Longitudinal Vibration of Direction Well Drill String	.....	BI Xue-liang, WANG Jian,YAN Tie, <i>et al</i> (4770)
Experimental Study of Sulphoaluminate Blocking Sealing Effect	.....	YANG Zhao,LIU Chen-ting,LI Rui, <i>et al</i> (4773)
Research of Modeling and Simulation for Oil Field Water Flooding System	.....	HONG Hai-yan(4777)

**Instrumental Technology**

Finite Element Analysis of Contact Pressure for Single PCPs	.....	
---	-------	--

.....	GUO Ying(4800)
-------	----------------

**Power Technology**

Mixed Coal-fired Circulating Fluidized Bed Boiler Mud Ratio Analysis	.....	ZHOU Ya(4800)
The Impact of Fuel Heat Value Change on the Flow Field in Turbine Part of 9FA Gas Turbine	.....	LIU Xun WANG Song-tao,ZHAO Yi-fan, <i>et al</i> (4788)

**Communicational Technology**

The Design of a Differential VCO with Low Power Dissipation and Good Linear $V$ - $f$ Characteristic	.....	YIN Fei,GUO Zhong-jie,JI Qing-zhou, <i>et al</i> (4792)
The Research of Synchronization Pulse Generation System with Multi-channel and High-precision Based on FPGA	.....	CHEN Bo-jun, ZHOU Jun-min MA Jun-yong(4796)
Speech Recognition Based on Neural Networks	...	YE Hong,ZHU Yong-hua,ZHANG You-zheng(4799)
Study and Design of Low Speed Network Protocol in Embedded System	.....	CHEN Ming,QUAN Hou-de KOU Chao(4812)

**Computational Technology**

Application of Second-order Sliding Mode Control in Carrier Landing System	.....	LI Ying-jie,ZHOU Sheng-ming(4807)
Elevator's Remote Monitoring System Based on Web Services	.....	SUN Shi-ming, MA Xiu-jun,TANG Jian-zhi(4812)
A Method of Information Resource Focusing Service Based on Subject Analysis	.....	YANG Qiang, SUI Fu-ning, DENG Su, <i>et al</i> (4822)
Coding Based on H.264 Video Watermarking Algorithm	.....	ZHOU Tian-liang(4822)
Face Recognition by Gabor Wavelet Transform and 2DKDA Feature Extracton	.....	XIAO Cun-tao (4826)
Research on the Simulation Modeling of Equipment Support Communication Network	.....	WANG Lin, DU Xiao-ming, SUN Xiao, <i>et al</i> (4838)
Application of the Partial Least Square in Forecasting the Pressure of the Torpedo Launch Tube	.....	DONG Yu-cai, LIN Min, GONG Lei, <i>et al</i> (4834)

**Architectural Technology**

The Evaluation of Soft Earth Foundation Treatment with Vibro Replacement Stone Columns	.....	LI Bo , ZHANG Jian-ping YANG Lei(4838)
--	-------	---

Bearing Mechanism of Super-long PHC Pipe Piles in Soft Soil Foundation ..... ZHOU Wan-qing, LI Xian-wu(4847)

The Influence of Recycled Aggregate Replacement Rate on the Performance and Strength of Recycled Aggregate Concrete ..... JIANG Nan, XU Qing, ZHANG Wei(4846)

Traffic and Transpotation

2D FE Analysis of Flexible Pavement with Geogrid Reinforcement Using Mohr-Coulomb Model ..... YUAN Pu, WANG Duan-yi,FWA Tien-fang(4861)

Yunnan Road 2 Shuifu to Suijiang Mucun Landslide Stability Analysis and Treatment Evaluation ..... ZHAO Hua-xiang  
ZHOU Yi-tang,LI Ri, *et al*(4856)

Measuring and Analysis of Local Stress under Anchorage of Continuous Rigid Frame Bridge ..... ZHENG Guo-qing(4861)

Aeronautics and Astronautics

Research on Air-breathing Rocket Combined Cycle with Liquefied Air Cycle Engine Subsystem ..... YAN Hong-ming  
HAN Shao-bing, ZHONG Jing-jun, *et al*(4868)

Environmental Science

High Gravity Technology in the Application of Industrial Wastewater ..... YU Hua-bing,LIU You-zhi(4872)

Ecological Footprint is the New Method to Study of Soil Bearing Capacity ..... JIN Ke-sheng,CHEN Xiao-na(4881)

Management Science

The Research on Scheduling Based on JIT in Ship Block Building ..... CAO Da-peng ,YANG Heng(4881)

The Effect of Exchange Rate Fluctuations on China's Export under New Economic Situation: An Empirical Study Based on Panel Data ..... TANG Yan-qing,TANG Zong-ming(4887)

Recorrected Table ..... (4890)

勘 误 表

本期 2010 期 10 卷第 18 期第 4476 页下半页漏排以下内容。特此补正。

(上接第 4470 页)

An Annotation for Integral Conditions of a Class of Riccati Differential Equations

FENG Lu-xiang

(Dept. Math. , Baoji Univ. Arts & Sci. ,Baoji 721013, P. R. China)

[Abstract] Based on two-parameters particular solution for the Riccati equation, a kind of integral results involving particular solution of Riccati equation are united and extended using the variable transformation method, then a more extensive integral condition and its generalization are obtained.

[Key words] Riccati differential equation      paticular solution      integral conditions      generalization