

数 学 进 展 总 目 录

2005 年 第 34 卷

第 1 期

综述文章

- 灵活的应用数学技术 杨德庄 (1)
算子值傅里叶乘子与向量值边值问题最大正则性 步尚全 (17)

研究论文

- 一类非凸粘性平衡律方程的粘性激波解的存在性与稳定性 (英) 邢秀侠 (43)
二元混合型索赔分布的复合模型的递推方程 (英) 周俊, 杨静平, 程士宏, 程乾生 (54)
二维 Finsler 空间是共形平坦的若干判定条件 魏献祝, 张纪平 (73)
再论集体次正规空间的逆极限 朱培勇, 蒋继光 (80)
 C^* -代数上的 Fourier 变换和 C^* -代数上的 Vinogradov 不等式 (英) 孙大英 (85)
广义模糊数值 Choquet 积分的自连续性与其结构特征的保持 (英) 王贵君, 李晓萍 (91)
一类 Poincaré 方程的中心焦点判定 岳喜顺 (101)
Pell 方程组 $x^2 - ay^2 = 1$ 和 $z^2 - by^2 = 1$ 的解数 乐茂华 (106)

研究报告

- Structure of Solvable Quadratic Lie Algebras ZHU Lin-sheng (117)
Total Dominating Set Games Fang Qi-zhi (121)
Extensions of Vietoris's Inequalities (I) Gavin Brown, Dai Feng, WANG Kun-yang (125)
中国数学会 2005 年学术会议计划 (128)
2004 年第 6 期“第三届数学天元基金学术领导小组的工作汇报”一文的勘误 (116)

第 2 期

- 深切悼念段学复教授 王萼芳, 石生明, 张继平, 王杰 (129)

综述文章

- 随机配置问题的概率分析 苏中根 (133)
混合超图的染色理论 刁科凤, 刘桂真 (145)

研究论文

- 对于某些素数共轭类长无平方因子的有限群 陈波, 张志让 (155)
(0, 1)-矩阵的积和式的图表示及其相关性质 扈生彪 (160)
由圈长分布确定的偶图 王敏, 王明磊, 施永兵 (167)
置换理想上的正则矩阵 (英) 陈焕良 (173)
李群表示论和 Schubert 条件 赵旭安 (178)
四元数矩阵的极分解及其 GL 偏序 庄瓦金 (187)

关于单状态变量的局部分岔问题中的内蕴理想	时红廷, 郑崇友 (194)
Lax 方程与耦合 Poisson 流行的动力 r - 矩阵 (英)	刘张炬, 王澜 (201)
非紧超凸度量空间的 Browder 不动点定理及其对重合问题的应用	文开庭 (208)
所有点对之间最快路问题 (英)	李帮义, 盛昭瀚 (213)
$K_{1,4}$ - 自由的模 k 泛圈图 (英)	阿勇嘎, 孙志人, 田丰, 卫兵 (221)
一类非线性奇摄动方程的激波问题 (英)	唐荣荣 (233)
研究报告	
Sharp Conditions of Global Existence for Klein-Gordon-Zakharov Equations in Three Space Dimensions	ZHANG Jian, GAN Zai-hui (241)
Some Results on Holomorphic Vector Bundles Over General Hopf Manifolds	GAN Ning, ZHOU Xiang-yu (245)
A New Condition and Applications in Fourier Analysis (II)	LE Rui-jun, ZHOU Song-ping (249)
Extensions of Vietoris's Inequalities	Gavin Brown, DAI Feng, WANG Kun-yang (253)
《数学进展》征稿简则 (新)	(256)

第 3 期

综述文章

Finsler 几何的回顾与进展	莫小欢 (257)
有理逼近的一些最新进展 (II)—— 倒数逼近的研究综述	虞旦盛, 周颂平 (269)

研究论文

两个带变时间步的两重网格算法的稳定性分析 (英)	任春风, 马逸尘 (281)
富足半群上的自然偏序 (英)	郭小江, 罗彦锋 (297)
单状态变量的局部对称性分岔问题中内蕴子模的一点注记 (英)	时红廷, 郑崇友 (309)
Klein 瓶上的双奇异地图 (英)	李赵祥, 任韩, 刘彦佩 (313)
位置刻度分布族中参数的两步置信区间 (英)	王海贤, 李建峰, 陈桂景 (322)
五边方程的集合理论解 (英)	蒋立宁, 刘明 (331)
一种点熵的估计与计算 (英)	黄保军 (338)
带耗散项的浅水波方程的整体边界稳定性 (英)	杨灵娥, 郭柏灵 (343)
正定型超曲面上双曲闭特征的 Maslov 型指标的迭代公式 (英)	安天庆 (355)
非负不可约矩阵的广义 Perron 补矩阵	杨传胜, 徐成贤 (361)

研究报告

Un-selfsimilar Elementary Wave and Global Solutions of a Class of Multi-dimensional Conservation Laws	YANG Xiao-zhou (367)
A New Proof of a Theorem About Wave Equation	ZHU You-bin (370)
The Classification of Connected Imprimitve Arc-transitive Graphs on $\mathbb{Z}_p \times \mathbb{Z}_p$	LI Xue-wen, XU Ming-yao (373)
中国数学与国家自然科学基金	许忠勤, 张文岭 (375)
《数学进展》征稿简则 (新)	(384)

第 4 期

综述文章

- Möbius 不变的 Q_p 空间: 结果、技巧和问题 (英) 乌兰哈斯 (385)
- 某些数学方法在地震波反演问题求解中的应用 杨晓春, 李小凡, 张美根 (405)

研究论文

- 关于某类解析函数的星象性和 Ruscheweyh 的一个问题 (英) 刘名生 (416)
- 一类具偏差变元 Rayleigh 方程周期解的存在性 (英) 鲁世平, 葛渭高 (425)
- \mathcal{P} - 正则半群的结构 (英) 李勇华 (433)
- Bubble-sort 图和 Modified Bubble-sort 图的自同构群 (英) 张昭, 黄琼湘 (441)
- 高维 Klein 群的一个不等式及其应用 (英) 王仙桃, 王桦 (448)
- 单叶调和映射的线性极值问题 (英) 王晓瑛 (455)
- 系列平行图的边面染色 (英) 吴建良, Wang Ping (461)
- 简单高阶奇异性的数值模拟 王贺元, 张文岭, 李开泰 (468)
- 1 序列覆盖映射的注记 林寿 (473)
- 量子环面上斜导子李代数的表示 林卫强, 谭绍滨 (477)
- 关于强奇异极大交换子代数 (英) 王利广, 温玉珍 (488)
- 非线性奇摄动两点边值问题的激波性态 (英) 唐荣荣 (497)

研究报告

- On a Singular Diffusion Equation in Nondivergence Form YAO Zheng-an, ZHOU Wen-shu, LIU Qiang (503)
- On the Extension Operator in Banach Spaces LIU Ming-sheng, ZHU Yu-can (506)
- New Structures for Global Solutions of Two Dimensional Simplified Euler Equations
..... YANG Xiao-zhou (509)
- 《数学进展》征稿简则 (新) (512)

第 5 期

综述文章

- 线性逻辑和态极逻辑引论 (I)(英) Pierre-Louis Curien (513)

研究论文

- 关于满足强分离集条件的自相似集的 Hausdorff 测度 许绍元, 周作领 (545)
- 关于一类 BS 的几个结果 张习勇, 韩文报 (553)
- 关于 Hardy 和的混合均值公式 刘红艳, 张文鹏 (561)
- 一类对偶积分方程组正则化为 Cauchy 奇异积分方程组解法 王文友 (569)
- 高维欧氏空间中的广义度量方程及其应用 杨定华 (584)
- 带粗糙核的 Marcinkiewicz 积分算子在 Herz 空间的有界性 (英) 陈冬香, 陈杰诚 (591)
- 多元 Stancu 算子的 Boolean 和迭代 曹飞龙, 王宏勇 (600)
- 复方程 $f'' + Af = 0$ 的解的零点充满圆 金瑾 (609)
- 超凸空间中的连续选择定理与耦合定理 (英) 陈凤娟, 沈自飞 (614)
- $IX_r(a)$ 的有限型 $IX_r(a)$ 的未定 Weyl 群 李立, 王书琴 (619)

BCI-代数的一个结构定理 (英)	黄益生 (627)
Hilbert 空间 H 上正交射影对的一个注记	姚喜妍 (631)
研究报告	
Attractors of the Derivative Complex Ginzburg-Landau Equation in Unbounded Domains	GUO Bo-ling, HAN Yong-qian (637)
《数学进展》征稿简则	(640)

第 6 期

综述文章

关于 C. Fefferman 定理与全纯映射的边界扩充	韩静, 陈志华 (641)
谈谈概率论与其他学科的若干交叉	陈木法 (661)

研究论文

关于 $C(\Omega)$ 中可补子空间的一个注记	定光桂 (673)
一类局部定向完备集及其范畴的性质	管雪冲, 王戈平 (677)
直径为 d 的 n 阶树的谱半径	郭曙光, 徐光辉, 陈永高 (683)
从不定度量空间形式到不定度量空间形式的等距浸入 (英)	陈维桓, 李海中, 马辉 (693)
$L^p_{[0,1]}$ ($1 < p < \infty$) 空间正系数多项式倒数逼近的一个推广 (英)	梅雪峰, 周颂平 (707)
具有迷向 S 曲率 Randers 度量的几何意义 (英)	邢浩 (717)
关于 p -幂零限制李超代数 (英)	陈良云, 孟道骥 (731)
由 6 条实直线构成的仿射 Zariski 对	余建明, 姜广峰 (738)
Henstock 积分问题的一个注记 (英)	叶国菊, 安天庆 (741)
Prequantale 同余及其性质	王顺钦, 赵彬 (746)
局部积分余弦算子函数的生成定理	王梅英, 蒋志芳, 沈雁 (753)
《数学进展》征稿简则	(760)
《数学进展》第 34 卷总目录	(761)

ADVANCES IN MATHEMATICS

Vol.34 2005

No.1

SURVEY PAPERS

- Flexible Technologies in Applied Mathematics *YANG De-zhuang* (1)
Operator-valued Fourier Multipliers and Maximal Regularity
for Vector-valued Boundary Problems *BU Shang-quan* (17)

RESEARCH PAPERS

- Existence and Stability of Viscous Shock Waves for Non-Convex Viscous Balance Law .. *XING Xiu-xia* (43)
Recursive Equations of Compound Distributions for Bivariate Mixed-type Severity
Distribution *ZHOU Jun, YANG Jing-ping, CHENG Shi-hong, CHENG Qian-sheng* (54)
Some Decision Condition of Conformally Flat Finsler Space With Two-dimensional
..... *WEI Xian-zhu, ZHANG Ji-ping* (73)
Further Discussing About Inverse Limits of Collectionwise Subnormality
..... *ZHU Pei-yong, JIANG Ji-guang* (80)
Fourier Transformation and Vinogradov Inequality of C -algebras *SUN Da-ying* (85)
Autocontinuity and Preservation of Structural Characteristics of Generalized Fuzzy
Number-valued Choquet Integrals *WANG Gui-jun, LI Xiao-ping* (91)
The Center-focus Decision for a Class of Poincaré Equation *YUE Xi-shun* (101)
The Number of Solutions of Pell Equations $x^2 - ay^2 = 1$ and $z^2 - by^2 = 1$ *LE Mao-hua* (106)
RESEARCH ANNOUNCEMENTS (117)
**A PLAN OF ACADEMIC SYMPOSIA OF CHINESE
MATHEMATICAL SOCIETY (2005)** (128)

No.2

- Memories of Professor Hsio-Fu Tuan ... *WANG E-fang, SHI Sheng-ming, ZHANG Ji-ping, WANG Jie* (129)

SURVEY PAPERS

- Probabilistic Analysis for the Random Assignment Problem *SU Zhong-gen* (133)
The Coloring Theory of Mixed Hypergraphs *DIAO Ke-feng, LIU Gui-zhen* (145)

RESEARCH PAPERS

- Finite Groups in Which Each of Conjugacy Class Lengths is
Squarefree for Some Primes *CHEN Bo, ZHANG Zhi-rang* (155)
The Graph Theory Expression of Permanent of $(0, 1)$ -matrices and
Its Relative Properties *HU Sheng-biao* (160)

Bipartite Graphs Determined by Their Cycle Length Distributions	<i>WANG Min, WANG Ming-lei, SHI Yong-bing</i> (167)
Regular Matrices Over Exchange Ideals	<i>CHEN Huan-gen</i> (173)
Representation Theory and Schubert Condition	<i>ZHAO Xu-an</i> (178)
Polar Decomposition and GL Partial Ordering for Quaternion Rectangular Matrices	<i>ZHUANG Wa-jin</i> (187)
Intrinsic Ideals in Local Bifurcation Problems	<i>SHI Hong-ting, ZHENG Chong-you</i> (194)
The Lax Equation for Dynamical r -matrices Coupled With Poisson Manifolds	<i>LIU Zhang-ju, WANG Lan</i> (201)
The Browder Fixed Point Theorem in Noncompact Hyperconvex Metric Spaces and Its Applications to Coincidence Questions	<i>WEN Kai-ting</i> (208)
On the All-pairs Quickest Path Problems	<i>LI Bang-yi, SHENG Zhao-han</i> (213)
Pancyclicity Mod k of $K_{1,4}$ -free Graphs	<i>A Yong-ga, SUN Zhi-ren, TIAN Feng, WEI Bing</i> (221)
The Shock Problems for a Class of Nonlinear Singularly Perturbed Equations	<i>TANG Rong-rong</i> (233)
RESEARCH ANNOUNCEMENTS	(241)

No.3

SURVEY PAPERS

Review and Recent Developments in Finsler Geometry	<i>MO Xiao-huan</i> (257)
Recent Developments in Rational Approximation(II) — A Survey on Aproximation by Reciprocals of Polynomials ..	<i>YU Dan-sheng, ZHOU Song-ping</i> (269)

RESEARCH PAPERS

Stability Analysis of Two Types of Two-grid Algorithms With Variable Time Steps	<i>REN Cun-feng, MA Yi-chen</i> (281)
The Natural Partial Orders on Abundant Semigroups	<i>GUO Xiao-jiang, LUO Yan-feng</i> (297)
Note of Intrinsic Submodules in Local Symmetric Bifurcation Problems With One State Variable	<i>SHI Hong-ting, ZHENG Chong-you</i> (309)
Bisingular Maps on the Klein Bottle	<i>LI Zhao-xing, REN Han, LIU Yan-pei</i> (313)
Two-stage Approach to Fixed-width Confidence Intervals fot the Parameters in Location and Scale Family of Distributions	<i>WANG Hai-xian, LI Jian-feng, CHEN Gui-jing</i> (322)
On Set-theoretical Solution of the Pentagon Equation.....	<i>JIANG Li-ning, LIU Ming</i> (331)
Estimation and Computation of a Kind of Point Entropy	<i>HUANG Bao-jun</i> (338)
Global Boundary Stabilization of the Shallow Water Equation With Dissipation	<i>YANG Ling-e, GUO Bo-ling</i> (343)
Maslov-type Indices for Iterations of Hyperbolic Closed Characteristics on Positive-type Hypersurfaces	<i>AN Tian-qing</i> (355)
Generalized Perron Complements of Nonnegative and Irreducible Matrices	<i>YANG Chuan-sheng, XU Cheng-xian</i> (361)
RESEARCH ANNOUNCEMENTS	(367)
Mathematics With NSFC in China	<i>XU Zhong-qin, ZHANG Wen-ling</i> (375)

No.4

SURVEY PAPERS

- Möbius Invariant Q_p Spaces: Results, Techniques and Questions *WULAN Hasi* (385)
 Application of Some Mathematical Methods for
 Inversion on Seismic Waves *Yang Xiao-chun, LI Xiao-fan, ZHANG Mei-gen* (405)

RESEARCH PAPERS

- On the Starlikeness for Certain Subclass of Analytic Functions and
 a Problem of Ruscheweyh *LIU Ming-sheng* (416)
 On the Existence of Periodic Solutions to a Kind of Rayleigh Equation
 With a Deviating Argument *LU Shi-ping, GE Wei-gao* (425)
 A Construction of \mathcal{P} -Regular Semigroups *LI Yong-hua* (433)
 Automorphism Groups of Bubble-sort Graphs *ZHANG Zhao, HUANG Qiong-xiang* (441)
 An Inequality in High Dimensional Kleinian Groups and Its Applications
 *WANG Xiao-tao, WANG Hua* (448)
 Linear Extremal Problems for Univalent Harmonic Mappings *WANG Xiao-ying* (455)
 Simultaneous Coloring of Edges and Faces of Series-parallel Graphs *WU Jian-liang, WANG Ping* (461)
 Numerical Simulation of Simple High Order Singularity
 *WANG He-yuan, ZHANG Wen-ling, LI Kai-tai* (468)
 A Note on 1-sequence-covering Mappings *LIN Shou* (473)
 Representations of the Lie Algebra of Skew Derivations on Quantum Torus
 *LIN Wei-qiang, TAN Shao-bin* (477)
 On Strongly Singular Maximal Abelian Subalgebras *WANG Li-guang, WEN Yu-zhen* (488)
 The Shock Behavior for the Nonlinear Singularly Perturbed
 Two-points Boundary Value Problems *TANG Rong-rong* (497)
RESEARCH ANNOUNCEMENTS (503)

No.5

SURVEY PAPERS

- Introduction to Linear Logic and Ludics (I) *Pierre-Louis Curien* (513)

RESEARCH PAPERS

- On the Hausdorff Measure of the Self-similar Sets Satisfying
 the Strong Separation Open Set Condition *XU Shao-yuan, ZHOU Zuo-ling* (545)
 Some Results of a Kind of BS *ZHANG Xi-yong, HAN Wen-bao* (553)
 On Certain Hardy Sum and Its Hybrid Mean Value Formula *LIU Hong-yan, ZHANG Wen-peng* (561)
 A Method of Solving a Kind on Dual Integral Equations Via Decoupling
 Into Canonical Cauchy Singular Integral Equations *WANG Wen-you* (569)
 The Generalization of Metric Equations in the High-Dimensional Euclidean Space
 and Their Applications *YANG Ding-hua* (584)
 Boundedness of Marcinkiewicz Integral With Rough Kernel on Herz Spaces
 *CHEN Dong-xiang, CHEN Jie-cheng* (591)

Iterates of Boolean Sums for Multivariate Stancu Operators	<i>CAO Fei-long, WANG Hong-yong</i> (600)
The Zero-filling Discs of Solutions of Complex Equation $f'' + Af = 0$	<i>JIN Jin</i> (609)
Continuous Selection Theorems and Coincidence Theorems on Hyperconvex Spaces	<i>CHEN Feng-juan, SHEN Zi-fei</i> (614)
The Indefinite Weyl Group of Finite Type $IX_r(a)$ of Kac-Moody Algebras $IX_r(a)$	<i>LI Li, WANG Shu-qin</i> (619)
A Structure Theorem in BCI-algebras	<i>HUANG Yi-sheng</i> (627)
A Note on Regular Pairs of Orthogonal Projections	<i>YAO Xi-yan</i> (631)
RESEARCH ANNOUNCEMENTS	(637)

No.6

SURVEY PAPERS

On C. Fefferman's Theorem and Extendability of Holomorphic Mappings	<i>HAN Jing, CHEN Zhi-hua</i> (641)
Some Interaction of Probability Theory and Other Subjects	<i>CHEN Mu-fa</i> (661)

RESEARCH PAPERS

A Note on the Complemented Subspaces in $C(\Omega)$	<i>DING Guang-gui</i> (673)
A Kind of Local Directed Complete Sets and Properties of the Categories	<i>GUAN Xue-chong, WANG GE-ping</i> (677)
On the Spectral Radius of Trees With n Vertices and Diameter d	<i>GUO Shu-guang, XU Guang-hui, CHEN Yong-gao</i> (683)
Isometric Immersions of Indefinite Space Forms in Indefinite Space Forms	<i>CHEN Wei-huan, LI Hai-zhong, MA Hui</i> (693)
A Generalization on Approximation by Reciprocals of Polynomials With Positive Coefficients in $L^p_{[0,1]}$ Spaces for $1 < p < \infty$	<i>MEI Xue-feng, ZHOU Song-ping</i> (707)
The Geometric Meaning of Randers Metrics With Isotropic S -curvature	<i>XING Hao</i> (717)
On p -nilpotent Restricted Lie Superalgebras	<i>CHEN Liang-yun, MENG Dao-ji</i> (731)
An Affine Zariski Pair Consisting of Six Real Lines	<i>YU Jian-ming, JIANG Guang-feng</i> (738)
Remarks on Henstock Integrability	<i>YE Guo-ju, AN Tian-qing</i> (741)
Prequantale Congruence and Its Properties	<i>WANG Shun-qin, ZHAO Bin</i> (746)
A Generation Theorem for Local Integrated Cosine Operator Functions	<i>WANG Mei-ying, JIANG Zhi-fang, SHEN Yan</i> (753)