

2022 6

大学数学

College
Mathematics
Daxue Shuxue

第38卷 第6期 2022年12月

Vol.38 No.6 Dec. 2022

ISSN 1672-1454
CN 34-1221/O1

主管单位: 中华人民共和国教育部
主办单位: 教育部高校大学数学课程教学指导委员会
合肥工业大学

大学
数学

第三十八卷

第六期

二〇二二年十二月

大学数学

2022 年 12 月

第 38 卷 第 6 期(总第 224 期)

目 录

专题研究

- 与广义 Witt 代数有关的非有限分次李代数的极大子代数及其性质..... 徐润果,许 莹(1)
- 一类抛物方程解的水平集的曲率估计 赵丽萍,陈传强(9)
- 伪酉矩阵的分类..... 李诗雨,陈惠香(19)
- 实数集到时标上的概念推广的若干原则 赵莉莉(24)

教学改革

- 培养统计素养:统计通识课的探索与实践 彭小令,方开泰(29)
- SPOC 数据支持的线上线下混合教学探索与实践 李建平,宋伊萍,罗 永(35)
- 大学生创新意识与能力培养的探索实践——以几何概型一题多解为例 刘 杰,胡太忠,严继高(40)
- 大学数学公共基础课课程思政群的建设与实践 玄祖兴,陆小莉,袁安锋(45)

数学应用

- 季节性时间序列建模的“教”与“思” 韩 苗,周圣武,金子龙(53)

教学研究

- 与 p 级数的余项有关的级数与极限 黄永忠,雷冬霞(61)
- 混合偏导数相等的若干充分条件的注记 江樵芬,阮颖彬,徐 起(68)
- 二阶线性齐次常微分方程与方程组求解的类比法 张启峰,徐定华,徐映红(74)
- 利用第一型曲线积分求旋转曲面面积注记 王文龙,谭 畅,曲智林(79)
- 由一道考研题引起的对随机变量独立性的探讨..... 刘可为,宁荣健(84)
- 高等代数里线性空间理论在一元多项式中的若干应用..... 赵 静,刘合国(90)
- 一道有关积分中值定理的全国大学生数学竞赛试题的探讨..... 刘鑫旺,沈 艳(96)
- 有关两个新颖不等式的进一步推广 叶 专,温志红(101)
- 上阶外微分与广义斯托克斯公式的逆向思维 李华冰,宁荣健(106)

学生习作

- 正规矩阵的方程构造 方静雯,徐陈炜,曾 立,魏俊潮(116)
- 全国大学生数学竞赛几何题的极值方法及其引申 杨传富,张忠鼎(120)

问题与征解

- 问题 21 与问题 22 (125)
- 问题 11 解答 (125)

[期刊基本参数] CN 34-1221/O1 * 1984 * b * A4 * 128 * zh+en * P * ¥20.00 * 600 * 22 * 2022-12

本期责任编辑:赵征权, 周 玲

COLLEGE MATHEMATICS

Vol. 38 No. 6(Serial No. 224) Dec. 2022

CONTENTS

Maximal Subalgebras and Properties of the Non-Finite Graded Lie Algebra Related to Generalized Witt Algebras	XU Runguo,XU Ying(1)
Curvature Estimate of the Level Set of Solutions for a Class of Parabolic Equations	ZHAO Liping,CHEN Chuanqiang(9)
The Classification of Pseudo-Unitary Matrices	LI Shiyu,CHEN Huixiang(19)
Several Principles of Concept Extension from Real Number Set to Time Scale	ZHAO Lili(24)
Cultivating Statistical Literacy: Practice and Exploration of Statistical Course as General Education	PENG Xiaoling,FANG Kaitai(29)
The Exploration and Practice of Mixed Teaching Supported by SPOC Data	LI Jianping,SONG Yiping,LUO Yong(35)
Investigation of Students' Innovative Thinking Ability Training ——Based on Multiple Solutions to a Geometric Probability Problem	LIU Jie,HU Taizhong,YAN Jigao(40)
Construction and Practice of Ideological and Political Group of University Mathematics Public Basic Course	Xuan Zuxing,Lu Xiaoli,Yuan Anfeng(45)
‘Teaching’ and ‘Thinking’ in Seasonal Time Series Modeling	HAN Miao,ZHOU Shengwu,JIN Zilong(53)
Series and Limits Relating to Remainder Term of p -series	HUANG Yongzhong,LEI Dongxia(61)
A Note on Some Sufficient Conditions for the Equality of Mixed Partial Derivatives	JIANG Qiaofen,RUAN Yingbin,XU Qi(68)
Analogical Method for Solving Second-Order Linear Homogeneous Ordinary Differential Equations and Systems	ZHANG Qifeng,XU Dinghua,XU Yinghong(74)
Notes on the Calculation about the Area of Rotation Surface Using First Type Curvilinear Integral	WANG Wenlong,TAN Chang,QU Zhilin(79)
Discussion on the Independence of Random Variables Motivated by a Math Problem in the Postgraduate Entrance Examination	LIU Kewei,NING Rongjian(84)
Some Applications of Linear Spaces in Polynomials of a Single Variable	ZHAO Jing,LIU Heguo(90)
A Discussion on the Mean Value Theorem of Integral in the National Mathematics Competition for College Students	LIU Xinwang,SHEN Yan(96)
Remarks on Further Generalization of Two New Inequalities	YE Zhuan,WEN Zhihong(101)
Previous-order Exterior Differentiation and the Contrary Thinking of Generalized Stokes Formula	LI Huabing,NING Rongjian(106)
Equation Construction of Normal Matrix	FANG Jingwen,XU Chenwei,ZENG Li ,WEI Junchao(116)
Extremum Method to Geometry Problem in the National College Students Mathematics Competition and Extension	YANG Chuanfu,ZHANG Zhongding(120)
Problem 21 and Problem 22	(125)
Solution to Problem 11	(125)