

中国工业与应用数学学会 会刊
全国大学生数学建模竞赛组委会

第12卷第1期

数学建模及其应用

Mathematical Modeling and Its Applications

1
2023

山东科技大学主办

目 次

热点与前沿

新型飞机起落架阻尼器的数学建模与理论 谭 忠(1)

探索与实践

稀疏相位恢复的加权 L_1 -正则 Huber 回归方法 温小明, 阎爱玲(8)

基于改进的 LSTM 模型的建筑能耗预测 姜春晓, 张正贺, 段 华(16)

教学与竞赛

波浪能最大输出功率设计模型及求解 沈继红, 蔡志杰, 周双红, 郑雄波(25)

力电比拟法在波浪能装置最大功率求解中的应用

..... 宋昊天, 夏天乐, 张焯阳, 贺 丹(35)

波浪能装置设计模型及其解析求解 黄 河, 柳世纯, 周 正(44)

波浪能最大输出功率设计 栾天成, 康文广, 曹菁文, 栾峻峰, 姜海涛(52)

无人机遂行编队飞行中的纯方位无源定位方案研究 杨雨卉, 于爱菊, 乔 琛(60)

基于局部最优模型的无人机位置调整策略与仿真定位

..... 韩奥麟, 孙若函, 赵凯文(69)

基于几何建模与仿真模拟的无人机无源定位模型

..... 薛振森, 郑柏慧, 陈礼根, 蔡军伟(79)

基于二维几何计算与带阈值启发式搜索的无人机无源定位模型

..... 冯跃洋, 李俊志, 傅玄烨, 高晓飒(88)

历史与经典

逻辑斯谛(logistic)人口模型的起源与早期发展 姜启源, 谢金星(98)

评介与导读

广博见于应用, 深厚源自精进——数学建模案例丛书总览 姜启源(103)

现实世界的数学模型是数学的研究对象——介绍高尔斯《数学》 李大潜(107)

大哉, 数学之为用——介绍华罗庚、王元的《数学模型选谈》 陈叔平(110)

对话与争鸣

凡事皆可建模? 李银飞(114)

CONTENTS

Hot Topics and Research Edge

Mathematical Modeling and Theory of New Aircraft Dampers TAN Zhong(1)

Exploration and Practice

Weighted L_1 -regularized Huber Method for Sparse Phase Retrieval
..... WEN Xiaoming, YAN Ailing(8)

Prediction of Building Energy Consumption Based on Improved LSTM Model
..... JIANG Chunxiao, ZHANG Zhenghe, DUAN Hua(16)

Instructions and Competitions

Mathematical Model and Solution of Design of the Maximum Output Power of Wave Energy
..... SHEN Jihong, CAI Zhijie, ZHOU Shuanghong, ZHENG Xiongbo(25)

An Application of Dynamics-electricity Analogy Method to Power Calculation of Wave
Energy Generators SONG Haotian, XIA Tianle, ZHANG Yeyang, HE Dan(35)

Design Model of Wave Energy Device and its Analytical Solution
..... HUANG He, LIU Shichun, ZHOU Zheng(44)

Design of Maximum Output Power of Wave Energy
..... LUAN Tiancheng, KANG Wenguang, CAO Jingwen, LUAN Junfeng, JIANG Haitao(52)

Passive Location with Bearing-only in Formation Flight of UAVs
..... YANG Yuhui, YU Aiju, QIAO Chen(60)

UAV Position Adjustment Strategy and Simulation Positioning Based on Local Optimal Model
..... HAN Aolin, SUN Ruohan, ZHAO Kaiwen(69)

UAV Passive Positioning Model Based on Geometric Modeling and Simulation
..... XUE Zhensen, ZHENG Baihui, CHEN Ligen, CAI Junwei(79)

Passive Location Model of UAV Based on Computational Geometry and Heuristic
Search with Threshold FENG Yueyang, LI Junzhi, FU Xuanye, GAO Xiaofeng(88)

History and Classics

Origin and Early Development of Logistic Population Model
..... JIANG Qiyuan, XIE Jinxing(98)

Review and Introduction

Broadness is Reflected in Application Fields, Profoundness Comes from Sustained Improvements
——Overview of the Books Series in Mathematical Modeling Cases
..... JIANG Qiyuan(103)

An Introduction to 《Mathematics》 LI Daqian(107)

An Introduction to 《Some Topics on Mathematical Modeling》 CHEN Shuping(110)

Dialogue and Arguments

Can Everything be Modeled? LI Yinfei(114)