

中国医学物理学杂志

CHINESE JOURNAL OF MEDICAL PHYSICS

月刊 1984年创刊 2026年3月25日第43卷第3期(总第272期)



主管

南方医科大学

主办

南方医科大学
中国医学物理学会

编辑

《中国医学物理学杂志》编委会

主编

胡逸民

编辑部主任

黄开颜

出版

《中国医学物理学杂志》编辑部

通讯地址

广州市同和南方医科大学
生物医学工程学院
电话:020-61648280
传真:020-61360581
邮编:510515
网址:www.cjomp.com
E-mail:YXWL@263.net.cn
微信号:cjomp001

印刷

佛山市金华彩印刷有限公司

国内订阅

全国各地邮政局
邮发代号:46-259

国外订阅

中国出版对外贸易总公司
(北京782信箱)

国外发行代号

DK44009

邮购

《中国医学物理学杂志》编辑部

定价

每册15.00元;全年180.00元

中国标准连续出版物号

ISSN 1005-202X
CN 44-1351/R

目次

医学放射物理

- 基于 Monaco 计划系统的 Inc 参数在乳腺癌放疗计划中的剂量学研究
.....石婷婷,倪昕晔,韩济华,张艳,张晓晔,朱志坚,洪君(281)
- 放射治疗在体剂量验证方法研究
.....何雨佳,张宇涛,谢凯,高留刚,张楠,张子腾,王子怡,胡婧,倪昕晔(288)

医学影像物理

- 基于噪声自适应感知的低场 MRI 图像增强方法
.....刘琪,胡宇韬,杨淳泓,陈阳(293)
- DCE-MRI 联合 DWI 在前列腺良恶性病变诊断中的应用价值
.....周亚芬,赵旖旎,邱伟,姜彦亭(300)
- 基于 FAC-Net 的结直肠息肉图像分割方法
.....冀常鹏,梁正,代巍(308)
- 基于多模态融合技术提升乳腺超声与磁共振成像联合诊断乳腺癌的效能
.....代妮娜,张文君(317)

医学信号处理与医学仪器

- 基于 Inception-SE 注意力机制的辐射致声信号带宽增强与降噪研究
.....汪新怡,贺亚迪,赵新新,陈博湧,宋婷,李永宝(321)
- 基于 GWO-VMD-DLSTM 框架的心磁信号降噪方法
.....范振华,刘志琴,常家铭,段俊萍,王佳云,张斌珍(330)

医学生物物理

- 植入式电刺激技术在康复医学中的应用
.....陈盈月,孟伟,李尚桦,王青,王晓云(338)
- 原子力显微镜探究高糖和高脂对内皮细胞杨氏模量的影响
.....熊宇轩,苏湘江,杨桢,苏傲寒,龙孟秋,文斗斗,杨开巍(345)

间歇性 Theta 脉冲刺激联合膝关节控制训练治疗脑卒中后平衡功能障碍

.....李秋兰,张翼,苏碧英,阙清华(350)

特定电磁波治疗仪在减重代谢术后胃肠功能紊乱中的应用及预后李碧云,陈美君,黄美霞,李木兰(355)

脉冲式定向振荡排痰治疗系统联合气道廓清技术预防心脏瓣膜置换术后肺部感染的临床效果

.....曾丽秋,潘妹子,张晓萍(359)

生物力学与材料

追尾碰撞中头枕倾角对乘员颈部损伤的影响崔世海,丁琦,李海岩,贺丽娟,吕文乐(364)

基于 β -磷酸三钙/羟基磷灰石牙槽骨复合材料制备和性能齐艳,马麟,范江,龚毅,王南飞,张婷(372)

医学生物信息

基于图神经网络和傅里叶变换的分子属性预测刘昱,任真(381)

医学人工智能

基于通道-空间自适应模块的YOLOv5算法在脑出血CT图像自动识别与分割中的应用

.....张宇航,杨涛,卢学麒,付丽媛,黄浩(386)

基于DenseNet的儿童肺炎识别与多分类研究杨传婕,马志庆,赵文华,赵爽(393)

基于改进U-net的黑色素瘤全视野数字切片多尺度组织分割刘建伟,刘柳,刘萌萌,李雨希,安晓东(401)

结合RFECV与HNDF的青光眼自动检测尚丽楠,池越,周亚同,单春艳,肖志涛,金可震(411)

责任编辑:陈丽霞

责任校对:黄开颜 薛泽玲 谭斯允

英语校对:谭斯允

编 务:廖艳玲

期刊基本参数:CN44-1351/R * 1984 * M * A4 * 144 * zh * P * ¥ 15.0 * 800 * 20 * 2026-03

Responsible Institution

Southern Medical University

Sponsored by

Southern Medical University
Chinese Society of Medical Physics

Edited by

Editorial Board of Chinese
Journal of Medical Physics

Editor-in-Chief

HU Yimin

Editorial Director

HUANG Kaiyan

Published by

Editorial Department of Chinese
Journal of Medical Physics

Address

School of Biomedical Engineering,
Southern Medical University,
Tonghe, Guangzhou
Postal code: 510515
Tel: 86-20-61648280
Fax: 020-61360581
Http://www.cjomp.com
E-mail: YXWL@263.net.cn
Wechat: cjomp001

Printed by

Printed by Foshan Jinhuacai
Printing Co., Ltd

Domestic Subscription

Post offices all over China
Post office subscription code:
46-259

Overseas Subscription

China National Publishing
Industry Trading Corporation
(P.O.Box. 782, Beijing, China)

Mail Order

Editorial Department of Chinese
Journal of Medical Physics

China Standard Serial Numbering

ISSN 1005-202X
CN 44-1351/R

CONTENTS

Medical radiation physics

Dosimetric study of Inc parameters based on the Monaco treatment planning system for breast cancer radiotherapy(281)

SHI Tingting, NI Xinye, HAN Jihua, ZHANG Yan, ZHANG Xiaoye, ZHU Zhijian, HONG Jun

Research status of *in vivo* dosimetric verification methods in radiotherapy(288)

HE Yujia, ZHANG Yutao, XIE Kai, GAO Liugang, ZHANG Nan, ZHANG Ziteng, WANG Ziyi, HU Jing, NI Xinye

Medical imaging physics

Low-field MRI image enhancement method based on adaptive noise perception(293)

LIU Qi, HU Yutao, YANG Chunfeng, CHEN Yang

Diagnostic value of dynamic contrast-enhanced magnetic resonance imaging combined with diffusion-weighted imaging in benign and malignant prostate lesions(300)

ZHOU Yafen, ZHAO Yini, QIU Wei, LOU Yanting

Colorectal polyp segmentation model based on frequency-aware and contextual network.....(308)

JI Changpeng, LIANG Zheng, DAI Wei

Improving the diagnostic efficacy of breast cancer by integrating breast ultrasound and magnetic resonance imaging with multimodal fusion technology(317)

DAI Nina, ZHANG Wenjun

Medical signal processing and medical devices

Inception-SE attention-driven bandwidth enhancement and denoising for radiation-induced acoustic signals(321)

WANG Xinyi, HE Yadi, ZHAO Xinxin, CHEN Boyong, SONG Ting, LI Yongbao

Magnetocardiography signal denoising method based on the GWO-VMD-DLSTM framework(330)

FAN Zhenhua, LIU Zhiqin, CHANG Jiaming, DUAN Junping, WANG Jiayun, ZHANG Binzhen

Medical biophysics

Application of implantable electrical stimulation in rehabilitation medicine(338)

CHEN Yingyue, MENG Wei, LI Shanghua, WANG Qing, WANG Xiaoyun

Investigation into the effects of high glucose and high fat on endothelial cell Young's modulus using atomic force microscope(345)

XIONG Yuxuan, SU Xiangjiang, YANG An, SU Aohan, LONG Mengqiu, WEN Doudou, YANG Kaiwei

Intermittent Theta pulse stimulation combined with knee joint control training for treating balance dysfunction in post-stroke patients(350)

LI Qiulan, ZHANG Yi, SU Biying, QUE Qinghua

Application and prognosis of specific electromagnetic wave therapy apparatus in gastrointestinal dysfunction after bariatric and metabolic surgery(355)

LI Biyun, CHEN Meijun, HUANG Meixia, LI Mulan

Clinical efficacy of pulse-oriented oscillation sputum evacuation apparatus combined with airway clearance techniques in preventing pulmonary infection following heart valve replacement surgery(359)
ZENG Liqiu, PAN Meizi, ZHANG Xiaoping

Biomechanics and materials

Effect of headrest inclination angle on occupant neck injury in rear-end collisions(364)
CUI Shihai, DING Qi, LI Haiyan, HE Lijuan, LÜ Wenle

Preparation and properties of β -tricalcium phosphate/hydroxyapatite-based alveolar bone composite materials(372)
QI Yan, MA Lin, FAN Jiang, GONG Yi, WANG Nanfei, ZHANG Ting

Biomedical informatics

Molecular property prediction based on graph neural network and Fourier transform(381)
LIU Yu, REN Zhen

Medical artificial intelligence

Application of YOLOv5 algorithm incorporating channel-spatial adaptive module for automatic recognition and segmentation of intracerebral hemorrhage in CT images(386)
ZHANG Yuhang, YANG Tao, LU Xueqi, FU Liyuan, HUANG Hao

Identification and multi-class classification of pediatric pneumonia based on DenseNet(393)
YANG Chuanjie, MA Zhiqing, ZHAO Wenhua, ZHAO Shuang

Multi-scale tissue segmentation in melanoma whole slide images using an improved U-net(401)
LIU Jianwei, LIU Liu, LIU Mengmeng, LI Yuxi, AN Xiaodong

Automated detection of glaucoma using recursive feature elimination with cross-validation and hybrid neural decision forest(411)
SHANG Li'nan, CHI Yue, ZHOU Yatong, SHAN Chunyan, XIAO Zhitao, JIN Kezhen

Executive Editor: CHEN Lixia

Executive Proofreaders: HUANG Kaiyan XUE Zeling TAN Siyun

English Editor: TAN Siyun

Editorial Assistant: LIAO Yanling