



应用声学

Journal of Applied Acoustics

第 38 卷

Vol.38

4

2019

中国科学院声学研究所 主办



科学出版社
Science Press

出版

万方数据

应用声学

(YINGYONG SHENGXUE)

(双月刊)

第38卷 第4期 2019年7月

目次

李启虎院士八十华诞学术论文

矢志创新铸辉煌, 壮心不已续华章——贺李启虎院士八十华诞·····	张春华 黄海宁 (465)
水声学中地声反演的新进展·····	尚尔昌 (468)
一种检测低信噪比下未知波形时变相干信号的方法·····	王宏磊 马远良 (477)
环境适应处理方法·····	王 宁 王鹏宇 宋文华 (484)
利用水平阵模态域波束形成判别声源深度·····	郭良浩 刘志韬 闫 超 (490)
基于混合范数约束的非均匀稀疏水声信道估计方法·····	张永霖 王海斌 台玉朋 等 (501)
水下移动平台网络化协同探测技术发展·····	冯西安 寇思玮 岳 玲 (509)
近程高速水声毫米波通信仿真与试验验证·····	张友文 黄福朋 李姜辉 (516)
散射条件下声源分离及参数获取的平行障板方法·····	莫喜平 (525)
声矢量圆阵宽带相干目标 MVDR 方位估计·····	时胜国 李 赢 (530)
一种低复杂度的稳健自适应波束形成·····	毛卫宁 钱 进 (540)
基于分组时延预处理的时域波束形成方法·····	陈新华 郑恩明 (545)
海洋水声环境敏感区诊断与适应性观测研究进展·····	笪良龙 过武宏 崔宝龙 等 (553)
冰下运动目标主动探测技术研究·····	刘建设 殷敬伟 朱广平 等 (562)
低频大孔径线列阵声呐在海底反射区的测向性能分析·····	韩志斌 彭朝晖 刘 扬 (569)
应用长度极化压电陶瓷 33 模态的半主动减振技术研究·····	胡吉英 李朝晖 (580)
水下目标多模态深度学习分类识别研究·····	曾 赛 杜选民 (589)
质点振速传感器直线阵超指向性波束形成·····	朱少豪 汪 勇 杨益新 (596)
分布式压缩感知麦克风阵列多声源方位估计·····	黄惠祥 郭秋涵 童 峰 等 (605)
浅海低频垂直相控阵多模声场聚焦·····	衣晓锋 彭大勇 侯倩男 等 (615)
浅海复杂环境下等效声速剖面的构建方法·····	贾雨晴 苏 林 莫亚泉 等 (623)
一种鲁棒性强的 OFDM 水声通信系统·····	张舒然 武岩波 朱 敏 等 (635)
基于字典学习和稀疏表示的单通道语音增强算法综述·····	叶中付 朱媛媛 贾翔宇 (645)
水声被动目标识别技术挑战与展望·····	程玉胜 邱家兴 刘 振 等 (653)
AUV 双基地合成孔径声呐成像实验·····	徐 文 孙 锋 潘 翔 等 (660)
低复杂度的 MIMO 声呐协方差矩阵重构方法·····	程 雪 王英民 (666)
连续波主动声呐的直达波抑制处理方法研究·····	周泽民 曾新吾 关承宇 等 (674)
隐蔽通信中基于水声信道的密钥生成技术·····	刘俊凯 董阳泽 张刚强 (681)
正交曲线坐标系在变化地形声场计算中的应用·····	高善国 李淑秋 王桂喜 (688)
基于超椭圆拟合的水下小目标分类·····	王 梁 田 杰 黄海宁 等 (697)
基于成像声呐 DIDSON 的水域内鱼群数量估计方法·····	荆丹翔 周晗昀 韩 军 等 (705)
快速正交搜索算法在水声信号处理中的应用·····	盛斯雨 郭 微 付金山 等 (712)
多极化 MIMO 信道特性与天线设计·····	朴大志 (720)
海洋环境噪声空间相关特性建模综述·····	黄益旺 (729)
基于变分模态分解和对称相关的目标舰船线谱检测·····	郭 政 胡长青 (734)
多子阵组合的短基线声学定位系统数据优化方法·····	程 谦 王英民 诸国磊 (742)
船舶辐射噪声信号仿真及评价·····	郑 援 李智忠 姜 斌 等 (750)
青年科学家如何投身水声学研究·····	李启虎 (756)

JOURNAL of APPLIED ACOUSTICS (BIMONTHLY)

Vol. 38, No. 4, July, 2019

CONTENTS

Research Articles for the 80th Birth Anniversary of Chinese Academician, Prof. LI Qihu

- A career full of significant scientific breakthrough and a mind with advanced technological innovation—In celebration of the 80th birthday anniversary of Prof. LI Qihu.....ZHANG Chunhua HUANG Haining (465)
- Progress of geoacoustic inversion in underwater acoustics.....SHANG Erchang (468)
- A method for detection of low SNR signals with unknown and variant waveforms... WANG Honglei MA Yuanliang (477)
- Environmentally adaptive signal processing..... WANG Ning WANG Pengyu SONG Wenhua (484)
- Source depth discrimination based on beamforming in modal domain by a horizontal array..... GUO Lianghao LIU Zhitao YAN Chao (490)
- Hybrid norm constraint based non-uniform sparse estimation for underwater acoustic channels..... ZHANG Yonglin WANG Haibin TAI Yupeng et al (501)
- Development of networked collaborative detection technology for underwater mobile platforms..... FENG Xi'an KOU Siwei YUE Ling (509)
- Simulation analysis and experimental verification for near range underwater acoustic millimeter communication..... ZHANG Youwen HUANG Fupeng LI Jianghui (516)
- Parallel-baffle method for separateness and parameters acquisition of a sound source under scattering condition..... MO Xiping (525)
- MVDR beamforming for wideband coherent signals by using circular acoustic vector sensor arrays..... SHI Shengguo LI Ying (530)
- A low-complexity robust adaptive beamformer..... MAO Weining QIAN Jin (540)
- Time domain beam-forming algorithm based on sub-group & time delay preprocessing..... CHEN Xinhua ZHENG Enming (545)
- Ocean acoustic sensitive region diagnose and adaptive observation..... DA Lianglong GUO Wuhong CUI Baolong et al (553)
- Research on technologies of active sonar moving target detection in under-ice waters..... LIU Jianshe YIN Jingwei ZHU Guangping et al (562)
- Deep water azimuth predication using bottom bounce sound received by a low frequency large aperture linear array..... HAN Zhibin PENG Zhaoxue LIU Yang (569)
- Semi-active vibration suppression utilizing 33 mode of longitude-polarized piezoelectric materials..... HU Jiying LI Zhaoxue (580)
- Multimodal underwater target recognition method based on deep learning..... ZENG Sai DU Xuanmin (589)
- Superdirective beamforming of line arrays using particle velocity sensors..... ZHU Shaohao WANG Yong YANG Yixin (596)
- Distributed compressed sensing microphone array multi-source azimuth estimation..... HUANG Huixiang GUO Qiuhan TONG Feng et al (605)
- Multi-mode field focusing using a low-frequency vertical phased array in shallow water..... YI Xiaofeng PENG Dayong HOU Qiannan et al (615)
- A method of constructing equivalent sound speed profile in complex shallow water..... JIA Yuqing SU Lin MO Yaxiao et al (623)
- A robust OFDM underwater acoustic communication system scheme..... ZHANG Shuran WU Yanbo ZHU Min et al (635)
- Review for speech enhancement algorithms based on dictionary learning and sparse representation..... YE Zhongfu ZHU Yuanyuan JIA Xiangyu (645)
- Challenges and prospects of underwater acoustic passive target recognition technology..... CHENG Yusheng QIU Jiaxing LIU Zhen et al (653)
- AUV bistatic synthetic aperture sonar imaging experiment..... XU Wen SUN Feng PAN Xiang et al (660)
- A low complexity covariance matrix reconstruction method of MIMO sonar..... CHENG Xue WANG Yingmin (666)
- Research on strong direct blast suppression for continuous active sonar..... ZHOU Zemin ZENG Xinwu GUANG Chengyu et al (674)
- Key generation technology based on underwater acoustic channel estimation in covert communication..... LIU Junkai DONG Yangze ZHANG Gangqiang (681)
- Applications of orthogonal curvilinear coordinates in sound field computation with non-flat sea floor..... GAO Shanguo LI Shuqiu WANG Guixi (688)
- Underwater small target classification based on superellipse fitting technology..... WANG Liang TIAN Jie HUANG Haining et al (697)
- Fish abundance estimation based on an imaging sonar..... JING Danxiang ZHOU Hanyun HAN Jun et al (705)
- Application of fast orthogonal search algorithm in underwater acoustic signal processing..... SHENG Siyu GUO Wei FU Jinshan et al (712)
- A review of channel characteristic and antenna design of multipolarized MIMO communication system... PIAO Dazhi (720)
- Review of the spatial correlation modeling of ocean ambient noise..... HUANG Yiwang (729)
- Target ship line-spectrum detection based on variational mode decomposition and symmetrical correlation..... GUO Zheng HU Changqing (734)
- Data optimization method of short baseline acoustic positioning system based on multiple subarray combination..... CHENG Qian WANG Yingmin ZHU Guolei (742)
- Simulation and evaluation of ship radiated noise signals..... ZHENG Yuan LI Zhizhong JIANG Bin et al (750)
- How do young scientists engage in underwater acoustics research..... LI Qihu (756)

《中文核心期刊要目总览》收录期刊
中国科技核心期刊
中国科学引文数据库来源期刊

应用声学

JOURNAL of APPLIED ACOUSTICS



双月刊 (1982 年创刊)
第 38 卷 第 4 期 2019 年 7 月

Bimonthly (Since 1982)
Vol. 38 No.4 July 2019

主 管	中国科学院	Supervised by	Chinese Academy of Sciences
主 办	中国科学院声学研究所	Sponsored by	Institute of Acoustics, Chinese Academy of Sciences
主 编	王秀明	Editor-in-Chief	WANG Xiuming
编 辑	《应用声学》编辑委员会 中国声学学会	Edited by	Editorial Board of Journal of Applied Acoustics The Acoustical Society of China
地 址	北京海淀区北四环西路 21 号 (100190)	Address	No.21, North 4 th Ring Road West, Haidian District, Beijing 100190, P. R.China
电 话	(010) 82547761	Telephone	(010) 82547761
电子邮箱	yysx@mail.ioa.ac.cn	E-mail	yysx@mail.ioa.ac.cn
网 址	http://yysx.cnjournals.cn	Website	http://yysx.cnjournals.cn
印刷装订	北京科信印刷有限公司	Printed by	Beijing Kexin Printing Co.,Ltd
出版发行	科学出版社	Published by	Science Press
发行范围	国内外公开	Distributed by	Beijing Bureau for Distribution of Newspapers & Periodicals, local post offices (domestic), and China International Book Trading Corporation, P.O.Box 399,Beijing 100044,China(abroad)
总 发 行	北京报刊发行局		
订 购 处	全国各地邮局		
国外发行	中国国际图书贸易总公司 (北京 399 信箱, 100044)		

刊号: ISSN 1000-310X
CN 11-2121/O4

代号: 国内 2-561
国外 BM607

定价: 每期 30 元
全年 180 元

ISSN 1000-310X

