



中文核心期刊 中国学术期刊综合评价来源期刊

ISSN 1000-1379

# 人民黄河

## YELLOW RIVER

1949年创刊



水利部黄河水利委员会主办

2012. 6

Vol.34 No.6



# 人民黄河

RENMIN HUANGHE

(月刊/1949年创刊)

第34卷第6期

(总第322期)

2012年6月10日出版

全国中文核心期刊

全国水利系统优秀期刊

中国期刊方阵双效期刊

中国学术期刊综合评价来源期刊

中国核心期刊(遴选)全文收录期刊

★

主 管 中华人民共和国水利部  
主 办 水利部黄河水利委员会  
编辑出版 《人民黄河》杂志社  
主 编 薛松贵  
副 主 编 骆向新 尚宏琦  
执行主编 马广州  
执行副主编 张智民  
责任编辑 赵宏伟 翟戌亮 张华岩  
刘 祺 吕艳梅  
英文审校 郝风华 吕艳梅  
技术编辑 朱 宏  
美术编辑 朱 鹏  
广告联系人 翟戌亮  
电 话 (0371)66022902(广告部)  
66023331(发行部)  
电子信箱 nmh2010@163.com  
(投稿·订阅·查询稿件)  
网 址 <http://nmhh.periodicals.net.cn>  
刊 号 ISSN 1000-1379  
CN41-1128/TV  
广告经营许可证号 4101004000083  
发行范围 国内外发行  
国内发行 《人民黄河》杂志社  
(郑州市金水路11号,450003)  
国内定价 10.00元/册  
国外发行 中国国际图书贸易总公司  
(北京399信箱,100044)  
国外代号 M738  
内文印刷 黄河水利委员会印刷厂  
四 封 印 刷 河南省瑞光印务股份有限公司

## 目 次

### 重点关注

- 北半球 OLR 与黄河上中游 6—9 月降水的关系 ..... 陈少勇,林 纤,芦旭东 1  
伊洛河洪水对黄河防洪的影响 ..... 牛玉国,端木礼明,吕文堂 7

### 防洪·治河

- 现阶段黄河入海流路输沙动态平衡研究 ..... 于守兵,王万战,王开荣,等 10  
创建相对稳定的黄河三角洲海岸 ..... 李泽刚,李长新 13  
凌汛开河历时预测模型研究 ..... 赵晓慎,吴海波,周 海 16  
基于主成分分析法的流域防洪体系综合评价 ..... 吴 娟 18  
基于 GIS 的防汛空间信息表达方法研究 ..... 杨 洋,彭文甫 21  
基于 ArcGIS Server 的黄河数学模型发布平台研究 ... 夏润亮,赖瑞勤,梁国辛 23  
水灾害事件应急管理研究述评 ..... 刘高峰,王慧敏,佟金萍 26  
讨赖河城区段综合治理模式探讨 ..... 薛万功,刘开清 30

### 水文·泥沙

- 孔兑入汇角度对黄河内蒙古段河道冲淤的影响 ..... 张 立,孙东坡,张 羽,等 32  
黄河源区未来气候变化情景预测 ..... 王金花,刘吉峰,张荣刚 35  
黄河内蒙古段干流水面蒸发量变化特征 ..... 丁 磊,刘廷玺,张海霞,等 38  
基于 ANFIS 的黄河灵口流域水文预报模型 ..... 杜富慧,王晓丽,郝振纯 41  
青铜峡站天然年径流量枯水段周期变化分析 ..... 李玉山,王志勇,芮江峰,等 43  
新疆叶尔羌河流域径流规律分析 ..... 王修内,黄 强,杨建霞 45  
断面面渠柔性植物水流特性试验研究 ..... 聂柏松,孙斌斌,赵振兴 48  
对黄河泥沙的新认识 ..... 毛海若,贾新平 51  
防洪减灾规划中的中小流域暴雨洪水研究 ..... 董滇红,宁亚伟,王 晶,等 53

### 水资源·水环境

- 熵权集对分析法在沁河水质评价中的应用 ..... 李永乐,潘 登 56  
基于 AHM 的城市节水水平综合评价 ..... 王松林,汪顺生,高传昌 58  
东平湖水体环境容量分析 ..... 陈永金,林 丽,刘加珍,等 61  
论生态需水问题的复杂性 ..... 王传武 63  
河南省典型地市旱情分析研究 ..... 李虎星 66  
模糊综合法在区域干旱评价中的应用 ..... 易知之,梁志民,赵卫民,等 68  
山东省水源地水质与生态安全研究 ..... 吴爱琴,董 杰,陈诗越,等 71  
河口村水库工程生态环境影响研究 ..... 黄海真,王 娜,姚同山 73

### 编辑委员会

- 顾问 钱正英 张光斗 潘家铮  
刘昌明 山仑 吴中如  
韩其为 王浩 王光谦  
张建云 张仁 胡春宏  
陈效国
- 主任 陈小江
- 副主任 郭国顺 薛松贵
- 委员 (以汉语拼音为序)
- 邓铭江 董哲仁 杜玉海  
端木礼明 Eelco van Beck(荷兰)  
何兴照 胡一三 黄强  
黄修桥 贾乃波 景来红  
李力 李鸿源(中国台湾)  
李景宗 李文家 李致家  
连煜 刘恒 刘汉东  
刘晓燕 栾维功  
骆向新 马孝义  
Richard Hopkins(澳大利亚)  
尚宏琦 孙平安 王宪章  
王兴奎 韦直林 吴宾格  
吴时强 吴泽宁  
许盈松(中国台湾) 薛塞光  
姚文艺 于长剑 翟家瑞  
张红武 张利新 张生富  
赵卫民

### 版权声明

凡向本刊投稿者,如无特殊声明,稿件一经采用,一律视为本刊拥有该稿件的图书版、电子版和网络版的全球使用权。作者稿酬和著作权使用费在稿件刊发后一次性支付。

本刊已被中国期刊全文数据库、中国学术期刊(光盘版)、万方数据库、维普中文期刊网等全文收录。稿件采用后,作者如不愿意文章被收录,请在来稿时声明,本刊将作适当处理。

未经本刊授权同意,任何单位和个人不得转载本刊内容,否则由此产生的法律后果自负。

- 贵州省喀斯特流域赋水遥感定量研究 ..... 贺中华,陈晓翔,梁虹,等 76
- 基于AHP的节水型社会建设评价 ..... 王曦,张水利,陈康 80
- 中美饮用水源地突发事件应急管理研究 ..... 王薇,杜桂荣,张丹丹 83
- 综合集成研讨厅在水权交易价格形成中的应用 ..... 任致,陈玲 86
- 再生水回灌条件下地下水重金属污染特征 ..... 徐教,梁杏,刘绍华 89
- 分担率在洱海水环境容量计算中的应用 ..... 梁攀,冯健,彭文启,等 92

### 水土保持·生态

- 基于AHP的丹江流域生态修复模式评价指标优选 ..... 刘建林,黄向向 95
- 基于临界雨强方法的孤山川水土保持效益评估 ..... 王志勇,李晓宇,钱星平 98
- 藏北班戈县草地退化及防护措施研究 ..... 高青,何政伟,李璇琼,等 101
- 双台子河口湿地资源能值-货币价值评估 ..... 成建,周林飞,谭艳芳 105

### 灌溉·供水

- 不同灌水方式下作物与地下水的相互影响效应 ..... 王金凤,周维博 108
- 黄陶勒盖沙漠地表蓄水供水贮水池的设计 ..... 姜薇,梁秀娟,肖长来 111
- 移动泵站的形式比较与选用 ..... 赵文军,冯晓莉,陈利,等 114

### 水利水电工程

- 魏桥水库围坝护坡设计研究 ..... 吴春澍,李雅萍,李四静,等 118
- 利用弹性理论求混凝土重力坝应力分布 ..... 周浩,王博,徐建国 120
- 基于改进粒子群算法的重力坝断面优化设计 ..... 李逸之,胡良明,柯启龙 125
- 锦屏水电站引水隧洞群长距离通风问题研究 ..... 张东明,王媛,钱继源,等 128
- 沥青混凝土心墙在肯斯瓦特围堰防渗中的应用 ..... 赵力,邢建营,王恒 131
- 特高压杆塔采空区地基稳定性模糊综合评价 ..... 刘朝安 133
- 预应力CFRP加固钢筋混凝土梁的受力试验 ..... 赵文杰,李晓克,赵顺波 136
- 考虑洞群作用的水电站埋管三维有限元分析 ..... 李增坤,马文英,郭智华,等 139
- 有冰盖条件下平板闸的输水能力研究 ..... 郑永朋,车献友,文恒 142
- 浅层湿陷性黄土重夯施工技术参数分析 ..... 潘立鹏,王晶 144
- 基于样条QR法的结构随机分析 ..... 王晓峰,秦荣,刘光焰 146

- 封面 伊麻目黄河大桥(青海循化) ..... 黄宝林 摄
- 封二 2012年黄河防汛抗旱会议在郑州召开 ..... 本刊讯
- 封三 《人民黄河》征稿征订启事

## Contents

Relationship Between Northern Hemisphere OLR and Precipitation of the Yellow River Upper and Middle Reaches from June to September .....	CHEN Shao-yong, LIN Shu, LU Xu-dong	1
Yiluo River Flood and Its Effect to the Yellow River Flood Control .....	NIU Yu-guo, DUANMU Li-ming, LV Wen-tang	7
Study on Dynamic Balance of Sediment Transported by Present Yellow River Flow Path to the Sea .....	YU Shou-bing, WANG Wan-zhan, WANG Kai-rong, et al.	10
To Shape Relatively Stable Coast of the Yellow River Delta .....	LI Ze-gang, LI Chang-xin	13
Study on Prediction Model for the Breaking up Date of Ice Flood .....	ZHAO Xiao-shen, WU Hai-bo, ZHOU Hai	16
Evaluation of the Basin Flood Prevention System Based on the Principal Components Analytic Method .....	WU Juan	18
Study on Spatial Information Expression in Flood Control Based on GIS .....	YANG Yang, PENG Wen-fu	21
Study of the Yellow River Mathematical Model Publishing Platform Based on ArcGIS Server .....	XIA Run-liang, LAI Rui-xun, LIANG Guo-ting	23
A Research Review on Emergency Management for Water Disaster Events .....	LIU Gao-feng, WANG Hui-min, TONG Jin-ping	26
Discussion on Comprehensive Management Mode of City Area Near Taolai River .....	XUE Wan-gong, LIU Kai-qing	30
Influence of Branch Inflow Angle to the Erosion and Deposition for Inner Mongolia Reach of the Yellow River .....	ZHANG Li, SUN Dong-po, ZHANG Yu, et al.	32
Generation Method of Climate Scene Based in the Headwater Regions of the Yellow River .....	WANG Jin-hua, LIU Ji-feng, ZHANG Rong-gang	35
Analysis of Water Evaporation of Inner Mongolia Section of the Yellow River .....	DING Lei, LIU Ting-xi, ZHANG Hai-xia, et al.	38
Flood Forecasting Model Based on ANFIS in Lingkou Catchment of the Yellow River .....	DU Fu-hui, WANG Xiao-li, HAO Zhen-chun	41
Analysis on Approximate Periodicity of Annual Runoff Series at Qingtongxia Station .....	LI Yu-shan, WANG Zhi-yong, RUI Jiang-feng, et al.	43
Analysis on the Law of the Yarkant River Runoff in Xinjiang Region .....	WANG Xiu-nei, HUANG Qiang, CHANG Jian-xia	45
Experimental Study on Flow Characteristics of Abrupt Expanded Cross Section Open Channel with Submerged Flexible Vegetation .....	NIE Bai-song, SUN Ji-bin, ZHAO Zhen-xing	48
New Cognition on Sediment of the Yellow River .....	MAO Hai-ruo, JIA Xin-ping	51
Study on Storm Flood of Flood Control Planning in Medium and Small River Basins .....	DONG Dian-hong, NING Ya-wei, WANG Jing, et al.	53
Application of Entropy Weight Set Pair Analysis in Qinhe River Water Quality Evaluation .....	LI Yong-le, PAN Deng	56
AHM-Based Level Fuzzy Comprehensive Evaluation of Urban Water Conservation .....	WANG Song-lin, WANG Shun-sheng, GAO Chuan-chang	58
Analysis on Water Environmental Capacity of Dongping Lake .....	CHEN Yong-jin, LIN Li, LIU Jia-zhen, et al.	61
On the Complexity of Ecological Water Demand .....	WANG Chuan-wu	63
Analytical Study on the Drought of Typical Cities in Henan Province .....	LI Hu-xing	66
Application of Fuzzy Comprehensive Method in Regional Drought Assessment .....	YI Zhi-zhi, LIANG Zhong-min, ZHAO Wei-min, et al.	68
Study on Water Quality and Ecological Security in Water Source Areas of Shandong Province .....	WU Ai-qin, DONG Jie, CHEN Shi-yue, et al.	71
Study on Eco-Environment Impact of Hekoucun Reservoir Project .....	HUANG Hai-zhen, WANG Na, YAO Tong-shan	73
Remote Sensing Quantitative Study of Karst Basin Water-holding in Guizhou Province .....	HE Zhong-hua, CHEN Xiao-xiang, LIANG Hong, et al.	76

---

Research on the Evaluation of Water-Saving Society Index System Based on Analytic Hierarchy Process	80
..... WANG Xi, ZHANG Yong-li, CHEN Kang	
Review of Emergency Management in Sino-US Drinking Water Source	83
..... WANG Wei, DU Gui-rong, ZHANG Dan-dan	
Application of Hall for Workshop of Meta Synthetic in Water Rights Trade Price Formation	86
..... REN Zheng, CHEN Ling	
Characteristics of Heavy Metal Pollution in Groundwater by Reclaimed Water Recharging	89
..... XU Min, LIANG Xing, LIU Shao-hua	
Application of Share Ratio Process in Water Environment Capacity Calculation of Erhai Lake	92
..... LIANG Qing, FENG Jian, PENG Wen-qi, et al.	
Index Optimization of Pattern of Ecological Restoration in the Danjiang River Basin Based on AHP	95
..... LIU Jian-lin, HUANG Xiang-xiang	
Soil and Water Conservation Effect Evaluation of Gushanchuan Watershed Based on "Critical Precipitation Intensity" Method	98
..... WANG Zhi-yong, LI Xiao-yu, QIAN Xing-ping	
Research of Grassland Degradation and Protective Measure in Northern Tibet Bangor County	101
..... GAO Qing, HE Zheng-wei, LI Xuan-qiong, et al.	
Evaluation of Energy-Monetary Value for Wetland Resources in Shuangtaizi Estuary	105
..... CHENG Qian, ZHOU Lin-fei, TAN Yan-fang	
Mutual Influences of Crop and Shallow Groundwater Under Distinct Water Patterns	108
..... WANG Jin-feng, ZHOU Wei-bo	
Surface Water Storage and Water Supply Cisterns Design of Huangtaolegai Desert	111
..... JIANG Wei, LIANG Xiu-juan, XIAO Chang-lai	
Type Comparison and Selection for Mobile Pumping Station	114
..... ZHAO Wen-jun, FENG Xiao-li, CHEN Li, et al.	
Application of Interlocking Precast Concrete Segment Revetments on Weiqiao Reservoir	118
..... WU Chun-shu, LI Ya-ping, LI Si-jing, et al.	
Solving the Stress Distribution of Concrete Gravity Dam on the Basis of Elastic Theory	120
..... ZHOU Hao, WANG Bo, XU Jian-guo	
Optimization Design of Gravity Dam Section Based on an Improved PSO Algorithm	125
..... LI Yi-zhi, HU Liang-ming, KE Qi-long	
Case Study on Construction Ventilation Method for Diversion Tunnels of Jinping Hydropower Station	128
..... ZHANG Dong-ming, WANG yuan, QIAN Ji-yuan, et al.	
Application of Casting Type Asphalt Concrete Core in Upstream Cofferdam of Kenswater Hydraulic Project	131
..... ZHAO Li, XING Jian-ying, WANG Heng	
Fuzzy Comprehensive Assessment of Foundation Stability of UHV Transmission Tower on Goaf	133
..... LIU Chao-an	
Experimental Study on Loading Behaviors of Reinforced Concrete Beams Strengthening with Prestressed CFRP	136
..... ZHAO Wen-jie, LI Xiao-ke, ZHAO Shun-bo	
Three-Dimensional Finite Element Analysis of the Hydropower Underground Penstocks Considering the Role of Group Tunnels	139
..... LI Zeng-kun, MA Wen-ying, GUO Zhi-hua, et al.	
Water Ability Research of Flat Gate Under the Conditions of the Ice Cover	142
..... ZHENG Yong-peng, MOU Xian-you, WEN Heng	
Determining and Researching the Heavy Tamping Technique Parameters of Shallow Ground Collapsible Loess	144
..... PAN Li-o, WANG Jing	
Random Response Analysis of Structure Basing on Spline QR Method	146
..... WANG Xiao-feng, QIN Rong, LIU Guang-yan	

---

**Sponsor** Yellow River Conservancy Commission of the  
Ministry of Water Resources  
**Editor and Publisher** The Editorial Board of Yellow River  
(No. 11 Jinshui Road, Zhengzhou, Henan, 450003)  
**Editor-in-chief** XUE Song-gui  
**Associate Editor-in-chief** LUO Xiang-xin SHANG Hong-qi  
**Executive Editor-in-chief** MA Guang-zhou

**Telephone** (0371)66025672 66022409 66022902  
**Fax** (0371)66023331  
**E-mail** rmhh2010@163.com  
**http:** //rmhh.periodicals.net.cn  
**Overseas Distributor** China International Book Trading  
Corporation P. O. Box 399, Beijing, China, Post Code  
100044 (Code-M738)