



ISSN 1673-9418
CODEN JKYTA8

JOURNAL OF FRONTIERS OF COMPUTER SCIENCE & TECHNOLOGY

计算机科学探索

第10卷 第2期 / Vol.10 No.2 Feb. 2016

一月刊



华北计算技术研究所 主办
科学出版社 出版

计算机科学与探索

Jisuanji Kexue yu Tansuo

(月刊)

2007年创刊

第10卷第2期 总第89期

2016年2月

主管单位

中国电子科技集团公司

主办单位

华北计算技术研究所

理事长 李建明

社长 谭继红

主编 李建中

总编辑 鞠玉兰

执行总编辑 丁宇萍

编辑部主任 袁璟

编辑

《计算机科学与探索》编辑部

地址:北京市海淀区北四环中路211号

北京619信箱26分箱

邮编:100083

电话:(010)89056056,89056055

E-mail:fcst@vip.163.com

http://www.ceaj.org

出版

《计算机科学与探索》杂志社

科学出版社

印刷

北京北林印刷厂

国内总发行

北京报刊发行局

订 阅 处

全国各地邮局(82-560)

国外总发行

中国国际图书贸易总公司



目 次

系统软件与软件工程

基于本体指标的本体版本演变分析方法

.....李致远,冯志勇,王鑫,李元放,饶国政 (151)

直觉主义计算树逻辑中的安全性和活性

.....鲍秋霜,张晋津 (163)

数据库技术

动态确定K值聚类算法的R-树空间索引构建

.....胡昱璞,牛保宁 (173)

基于MapReduce的连续概率Skyline查询

.....单观敏,董一鸿,何贤芒 (182)

网络与信息安全

结合用户生成内容与链接关系的社区发现算法

.....张恩德,高克宁,张昱,李封 (194)

面向学术社交网络的多维度团队推荐模型

.....袁成哲,曾碧卿,汤庸,王大豪,曾惠敏 (201)

人工智能与模式识别

基于多样本RNA-Seq数据的表达水平估计方法

.....张礼,刘学军,陈松灿 (210)

结合Total-Bregman距离的模糊聚类算法

.....超木日力格,于剑,朱杰 (220)

密度峰值优化初始中心的K-medoids聚类算法

.....谢娟英,屈亚楠 (230)

基于距离关联性动态模型的聚类改进算法

.....陈雄韬,闫秋艳 (248)

基于BK树的扩展置信规则库结构优化框架

.....苏群,杨隆浩,傅仰耿,余瑞银 (257)

面向大规模数据的快速多代表点仿射传播算法

.....刘季,陈秀宏,杭文龙 (268)

理论与算法

优势关系下变精度与程度“逻辑且”粗糙模糊集

.....李蒙蒙,徐伟华 (277)

EM最优参数求解的概率粗糙集推荐算法

.....王红,张燕平,钱付兰,陈功平 (285)

萤火虫算法收敛分析

.....陆克中,孙俊 (293)

Contents

Journal of Frontiers of Computer Science and Technology

(Monthly)

Started in 2007

Vol.10 No.2 Sum No.89 Feb. 2016

Superintended by

China Electronics Technology Group Corporation

Sponsored by

North China Institute of Computing Technology

President of Council: LI Jianming

Proprieter: TAN Jihong

Editor-in-Chief: LI Jianzhong

Chief Editor: JU Yulan

Executive Chief Editor: DING Yuping

Director of Editorial Department: YUAN Jing

Edited by

Editorial Department of *Journal of Frontiers of
Computer Science and Technology*

Mail Address: No.26, P.O.Box 619,

Beijing 100083, P.R.China

Tel: (8610) 89056056, 89056055

E-mail: fcst@vip.163.com

http://www.ceaj.org

Published by

Publishing House of *Journal of Frontiers of
Computer Science and Technology*

Science Press

Printed by

Beijing Beilin Printing House

Distributed by

Beijing Bureau for Distribution of
Newspapers and Journals

Domestic: All Local Post Offices in China

Foreign Distributed by

China International Book Trading Corporation

System Software and Software Engineering

- 151 Approach to Analyzing Ontology Versioning Evolution Based on Ontology Metrics
.....LI Zhiyuan, FENG Zhiyong, WANG Xin, et al
- 163 Safety and Liveness in Intuitionistic Computing Tree Logic
.....BAO Qiushuang, ZHANG Jinjin

Database Technology

- 173 R-tree Spatial Index Construction Based on Dynamical K -value Clustering Algorithm
.....HU Yupu, NIU Baoning
- 182 Continuous Probabilistic Skyline Query Based on MapReduce
.....SHAN Guanmin, DONG Yihong, HE Xianmang

Network and Information Security

- 194 Community Discovery Algorithm Based on Combination of Users Generated Contents and Link Relationships
.....ZHANG Ende, GAO Kening, ZHANG Yu, et al
- 201 Multi-Faceted Team Recommendation Model for Academic Social Networks
.....YUAN Chengzhe, ZENG Biqing, TANG Yong, et al

Artificial Intelligence and Pattern Recognition

- 210 Novel Method to Estimate Expression Level Based on Multi-Sample RNA-Seq Data
.....ZHANG Li, LIU Xuejun, CHEN Songcan
- 220 Fuzzy Clustering Algorithm Based on Total-Bregman Divergence
.....Chaomurilige, YU Jian, ZHU Jie
- 230 K -medoids Clustering Algorithms with Optimized Initial Seeds by Density Peaks
.....XIE Juanying, QU Yanan
- 248 Clustering Improved Algorithm Based on Distance-Relatedness Dynamic Model
.....CHEN Xiongtao, YAN Qiuyan
- 257 Structure Optimization Framework of Extended Belief Rule Base Based on BK-Tree
.....SU Qun, YANG Longhao, FU Yanggeng, et al
- 268 Fast Multi-Exemplar Affinity Propagation Algorithm for Large Data Sets
.....LIU Ji, CHEN Xiuhong, HANG Wenlong

Theory and Algorithm

- 277 Rough Fuzzy Set of Logical and Operation of Variable Precision and Grade Based on Dominance Relation
.....LI Mengmeng, XU Weihua
- 285 Recommendation Algorithm of Probability Rough Set Based on Optimal Parameters of EM
.....WANG Hong, ZHANG Yanping, QIAN Fulan, et al
- 293 Convergence Analysis of Firefly Algorithm
.....LU Kezhong, SUN Jun

©Copyright 2016, Editorial Department of *Journal of Frontiers of Computer Science and Technology*. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form without the prior written permission of the Editorial Department of *Journal of Frontiers of Computer Science and Technology*.

中国标准 ISSN 1673-9418
连续出版物号 CN 11-5602/TP

国内发行代号 82-560
国外发行代号 M4220

定价 40.00元

ISSN 1673-9418



万方数据