



## 南京理工大学图书馆

### 检索报告

委托人: 王冬  
委托人单位: 南京理工大学 理学院  
检索要求: 王冬发表的论文1、被 SCIE 数据库收录情况及其所在期刊的 JCR 分区情况; 2、被 EI (工程索引) 数据库收录情况。  
检索数据库: SCI EXPANDED (科学引文索引扩展版 1981-2019);  
中科院 JCR 期刊分区数据平台 (2019 年);  
EI Compendex (工程索引 1969-2019)  
检索时段: 2017 年 1 月 1 日至 2019 年 12 月 30 日

### 检索结果

本次检索根据委托人 王冬 所提供的论文目录及其检索要求, 通过对以上数据库进行检索, 检索结果如下:

王冬以第一作者发表的论文被 SCIE (科学引文索引扩展版) 数据库收录 1 篇, 其论文发表期刊 *MAGNETIC RESONANCE IN MEDICINE* 在《中科院 JCR 期刊分区数据平台》(2019) 的医学 (大类) 学科中为 2 区期刊, 在 RADIOLOGY, NUCLEAR MEDICINE & MEDICAL IMAGING 核医学 (小类) 学科中为 2 区期刊; 被 EI Compendex (工程索引) 数据库收录 1 篇。

检索结果详见附件 (共计 3 页)

特此证明!

检索证明人: 周蓉蓉

审核人: 齐

教育部科技查新工作站 (L28)

南京理工大学图书馆

2019 年 12 月 30 日



期刊全称: MAGNETIC RESONANCE IN MEDICINE							
期刊简称:		MAGN RESON MED		ISSN:		0740-3194	
年份:		2019年		综述:		否	
学科名称						分区	Top期刊
小类	RADIOLOGY, NUCLEAR MEDICINE & MEDICAL IMAGING核医学					2	-
大类	医学					2	是
期刊影响因子				总被引频次			
2016年	2017年	2018年	2016-2018年平均		2017年	2018年	2017年-2018年
3.924	4.082	3.858	3.955		31440	32648	64088

备注:

说说您的看法 (AddJComment.aspx?title=MAGNETIC+RESONANCE+IN+MEDICINE&issn=0740-3194&year=2019&department=南京理工大学&ip=219.230.69.170)



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第 1 条, 共 1 条  
标题: Dynamic MR image reconstruction based on total generalized variation and low-rank decomposition  
作者: Wang, D (Wang, Dong); Smith, DS (Smith, David S.); Yang, XP (Yang, Xiaoping)  
来源出版物: MAGNETIC RESONANCE IN MEDICINE DOI: 10.1002/mrm.28064 提前访问日期: NOV 2019  
Web of Science 核心合集中的 "被引频次": 0  
被引频次合计: 0  
入藏号: WOS:000494919000001  
PubMed ID: 31697864  
文献类型: Article; Early Access  
地址: [Wang, Dong] Nanjing Univ Sci & Technol, Dept Math, Nanjing, Jiangsu, Peoples R China.  
[Smith, David S.] Vanderbilt Univ, Med Ctr, Inst Imaging Sci, Nashville, TN USA.  
[Yang, Xiaoping] Nanjing Univ, Dept Math, Nanjing 210093, Jiangsu, Peoples R China.  
通讯作者地址: Yang, XP (通讯作者), Nanjing Univ, Dept Math, Nanjing 210093, Jiangsu, Peoples R China.  
电子邮件地址: xpyang@nju.edu.cn  
ISSN: 0740-3194  
eISSN: 1522-2594

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# 1. Quantitative Evaluation of Temporal Regularizers in Compressed Sensing Dynamic Contrast Enhanced MRI of the Breast (Open Access)

**Accession number:** 20173904210931

**Authors:** Wang, Dong (1, 2); Arlinghaus, Lori R. (3); Yankeelov, Thomas E. (4); Yang, Xiaoping (5); Smith, David S. (3)

**Author affiliation:** (1) School of Science, Nanjing University of Science and Technology, Nanjing, Jiangsu, China; (2) Department of Mathematics, Vanderbilt University, Nashville; TN, United States; (3) Vanderbilt University Institute of Imaging Science, Vanderbilt University Medical Center, Nashville; TN, United States; (4) Institute for Computational and Engineering Sciences, Departments of Biomedical Engineering and Internal Medicine, University of Texas at Austin, Austin; TX, United States; (5) Department of Mathematics, Nanjing University, Nanjing, Jiangsu, China

**Corresponding author:** Wang, Dong(31112253@njjust.edu.cn)

**Source title:** International Journal of Biomedical Imaging

**Abbreviated source title:** Int. J. Biomed. Imaging

**Volume:** 2017

**Issue date:** 2017

**Publication year:** 2017

**Article number:** 7835749

**Language:** English

**ISSN:** 16874188

**E-ISSN:** 16874196

**Document type:** Journal article (JA)

**Publisher:** Hindawi Limited, 410 Park Avenue, 15th Floor, 287 pmb, New York, NY 10022, United States

**Abstract:** Purpose. Dynamic contrast enhanced magnetic resonance imaging (DCE-MRI) is used in cancer imaging to probe tumor vascular properties. Compressed sensing (CS) theory makes it possible to recover MR images from randomly undersampled k-space data using nonlinear recovery schemes. The purpose of this paper is to quantitatively evaluate common temporal sparsity-promoting regularizers for CS DCE-MRI of the breast. Methods. We considered five ubiquitous temporal regularizers on 4.5x retrospectively undersampled Cartesian in vivo breast DCE-MRI data: Fourier transform (FT), Haar wavelet transform (WT), total variation (TV), second-order total generalized variation (TGV-2), and nuclear norm (NN). We measured the signal-to-error ratio (SER) of the reconstructed images, the error in tumor mean, and concordance correlation coefficients (CCCs) of the derived pharmacokinetic parameters Ktrans (volume transfer constant) and ve (extravascular-extracellular volume fraction) across a population of random sampling schemes. Results. NN produced the lowest image error (SER: 29.1), while TV/TGV-2 produced the most accurate Ktrans (CCC: 0.974/0.974) and ve (CCC: 0.916/0.917). WT produced the highest image error (SER: 21.8), while FT produced the least accurate Ktrans (CCC: 0.842) and ve (CCC: 0.799). Conclusion. TV/TGV-2 should be used as temporal constraints for CS DCE-MRI of the breast. © 2017 Dong Wang et al.

**Number of references:** 27

**Main heading:** Magnetic resonance imaging

**Controlled terms:** Compressed sensing - Errors - Image processing - Medical imaging - Tumors - Wavelet transforms  
**Uncontrolled terms:** Correlation coefficient - Dynamic contrast enhanced magnetic resonance imaging - Dynamic contrast enhanced MRI - Extracellular volumes - Generalized variation - Haar wavelet transform - Pharmacokinetic parameters - Quantitative evaluation

**Classification code:** 461.2 Biological Materials and Tissue Engineering - 716.1 Information Theory and Signal Processing - 746 Imaging Techniques - 921.3 Mathematical Transformations

**DOI:** 10.1155/2017/7835749

**Funding Details:** Number: 11531005, Acronym: -, Sponsor: National Aerospace Science Foundation of China; Number: 91330101, Acronym: -, Sponsor: National Aerospace Science Foundation of China; Number: U01 CA142565, Acronym: -, Sponsor: -; Number: CPRIT RR160005, Acronym: -, Sponsor: -; Number: K25 CA176219, Acronym: -, Sponsor: -;

**Funding text:** Financial support from NCI/NIH K25 CA176219, NCI/NIH U01 CA142565, CPRIT RR160005, and the National Nature Science Foundation of China (Grants 91330101 and 11531005) is appreciated.

**Compendex references:** YES

**Database:** Compendex

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**Data Provider:** Engineering Village





## 南京理工大学图书馆

# 检索报告

**委托人:** 王冬

**委托人单位:** 南京理工大学 理学院

**检索要求:** 王冬的发表的论文 1、被 ELSEVIER ScienceDirect 期刊全文数据库收录的情况; 2、发表期刊 *Magnetic Resonance Imaging* 是否为 2019 年 SCIE 收录源刊及其 JCR 期刊分区情况。

**检索数据库:** ELSEVIER ScienceDirect 期刊全文数据库  
SCI EXPANDED (科学引文索引扩展版 1981-2019)  
中科院 JCR 期刊分区数据平台 (2019 年)

**检索日期:** 2019 年 12 月 30 日

## 检索结果

经检索, 王冬以第一作者发表的论文 “snapMRF: GPU-accelerated magnetic resonance fingerprinting dictionary generation and matching using extended phase graphs” 已在 ELSEVIER ScienceDirect 期刊全文数据库中在线发表。其论文发表期刊 *Magnetic Resonance Imaging* 为 2019 年 SCIE 数据库的来源期刊, 截至检索日 (2019 年 12 月 30 日), 该刊在 SCIE 数据库中最新收录到第 64 卷。

该论文发表期刊 *Magnetic Resonance Imaging* 在《中科院 JCR 期刊分区数据平台》(2019) 的医学 (大类) 学科中为 4 区期刊; RADIOLOGY, NUCLEAR MEDICINE & MEDICAL IMAGING 核医学 (小类) 学科中为 3 区期刊。

检索情况详见附件 (共计 3 页)

特此证明!

检索证明人: 周振强

审核人: 齐林

教育部科技查新工作站 (L28)  
南京理工大学图书馆  
2019 年 12 月 30 日





## Magnetic Resonance Imaging

Available online 15 November 2019

In Press, Corrected Proof

Original contribution

# snapMRF: GPU-accelerated magnetic resonance fingerprinting dictionary generation and matching using extended phase graphs

Dong Wang<sup>a</sup>, Jason Ostenson<sup>b</sup>, David S. Smith Ph.D.<sup>b</sup>

Show more

<https://doi.org/10.1016/j.mri.2019.11.015>

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## Abstract

### Purpose:

Magnetic resonance fingerprinting (MRF) is a state-of-the-art quantitative MRI technique with a computationally demanding reconstruction process, the accuracy of which depends on the accuracy of the signal model employed. Having a fast, validated, open-source MRF reconstruction would improve the dependability and accuracy of clinical applications of MRF.

### Methods:

We parallelized both dictionary generation and signal matching on the GPU by splitting the simulation and matching of dictionary atoms across threads. Signal generation was modeled using both Bloch equation simulation and the extended phase graph (EPG) formalism. Unit tests were implemented to ensure correctness. The new package, snapMRF, was tested with a calibration phantom and an in vivo brain.

### Results:

Compared with other online open-source packages, dictionary generation was accelerated by 10–1000x and signal matching by 10–100x. On a calibration phantom,  $T_1$  and  $T_2$  values were measured with relative errors that were nearly identical to those from existing packages when using the same sequence and dictionary configuration, but errors were much lower when using variable sequences that snapMRF supports but that competitors do not.

### Conclusion:

Our open-source package snapMRF was significantly faster and retrieved accurate parameters, possibly enabling real-time parameter map generation for small dictionaries. Further refinements to the acquisition scheme and dictionary setup could improve quantitative accuracy.

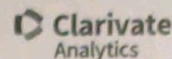
### Keywords

Magnetic resonance fingerprinting; Graphics processing units; Extended phase graph; Quantitative MRI; Relaxometry; Non-Cartesian

## 1. Introduction



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检索

工具 检索和跟踪 检索历史 标记结果列表 1

检索结果: 3,624

(来自 Web of Science 核心合集)

您的检索: 出版物名称: (Magnetic Resonance Imaging) ...更多内容

创建跟踪

## 精炼检索结果

在如下结果集内检索...



过滤结果依据:

- ☐ 领域中的高被引论文 (5)
- ☐ 开放获取 (642)

精炼

出版年

- ☐ 2019 (266)
- ☐ 2018 (204)
- ☐ 2017 (222)
- ☐ 2016 (186)
- ☐ 2015 (162)

更多选项/分类...

精炼

Web of Science 类别

- ☐ RADIOLOGY NUCLEAR MEDICINE  
MEDICAL IMAGING (3,618)
- ☐ CHEMISTRY MULTIDISCIPLINARY (6)

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精炼

文献类型

- ☐ ARTICLE (3,510)
- ☐ PROCEEDINGS PAPER (365)
- ☐ LETTER (42)
- ☐ REVIEW (39)
- ☐ EDITORIAL MATERIAL (21)

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精炼

机构扩展

- ☐ UNIVERSITY OF CALIFORNIA SYSTEM  
(187)
- ☐ VANDERBILT UNIVERSITY (110)

排序方式: 日期 被引频次 使用次数 相关性 更多

1 / 363

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印刷版

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添加到标记结果列表

分析检索结果

创建引文报告



1. AI in MRI: A case for grassroots deep learning

作者: Schilling, Kurt G.; Landman, Bennett A.

MAGNETIC RESONANCE IMAGING 卷: 64 特刊: SI 页: 1-3

出版年: DEC 2019



出版商处的全文

被引频次: 0

(来自 Web of Science 的核心合集)

使用次数



2. Differentiation of spinal metastases originated from lung and other cancers using radiomics and deep learning based on DCE-MRI

作者: Lang, Ning; Zhang, Yang; Zhang, Enlong; 等.

MAGNETIC RESONANCE IMAGING 卷: 64 特刊: SI 页: 4-12

出版年: DEC 2019



出版商处的全文

查看摘要

被引频次: 0

(来自 Web of Science 的核心合集)

使用次数



3. Synthesizing T1 weighted MPRAGE image from multi echo GRE images via deep neural network

作者: Ryu, Kanghyun; Shin, Na-Young; Kim, Dong-Hyun; 等.

MAGNETIC RESONANCE IMAGING 卷: 64 特刊: SI 页: 13-20

出版年: DEC 2019



出版商处的全文

查看摘要

被引频次: 0

(来自 Web of Science 的核心合集)

使用次数



4. Open-source pipeline for multi-class segmentation of the spinal cord with deep learning

作者: Paugam, Francois; Lefevre, Jennifer; Perone, Christian S.; 等.

MAGNETIC RESONANCE IMAGING 卷: 64 特刊: SI 页: 21-27

出版年: DEC 2019



出版商处的全文

查看摘要

被引频次: 0

(来自 Web of Science 的核心合集)

使用次数



5. Automated and accurate quantification of subcutaneous and visceral adipose tissue from magnetic resonance imaging based on machine learning

作者: Shen, Ning; Li, Xueyan; Zheng, Shuang; 等.

MAGNETIC RESONANCE IMAGING 卷: 64 特刊: SI 页: 28-36

出版年: DEC 2019



出版商处的全文

查看摘要

被引频次: 0

(来自 Web of Science 的核心合集)

使用次数



6. Tractography and machine learning: Current state and open challenges

作者: Poulin, Philippe; Jorgens, Daniel; Jodoin, Pierre-Marc; 等.

MAGNETIC RESONANCE IMAGING 卷: 64 特刊: SI 页: 37-48

出版年: DEC 2019



出版商处的全文

查看摘要

被引频次: 0

(来自 Web of Science 的核心合集)

使用次数



期刊全称: MAGNETIC RESONANCE IMAGING							
期刊简称:		MAGN RESON IMAGING		ISSN:		0730-725X	
年份:		2019年		综述:		否	
	学科名称					分区	Top期刊
小类	RADIOLOGY, NUCLEAR MEDICINE & MEDICAL IMAGING核医学					3	-
大类	医学					4	否
期刊影响因子				总被引频次			
2016年	2017年	2018年	2016-2018年平均		2017年	2018年	2017年-2018年
2.225	2.564	2.112	2.300		7194	7321	14515

备注:

说说您的看法 (AddJComment.aspx?title=MAGNETIC+RESONANCE+IMAGING&issn=0730-725X&year=2019&department=南京理工大学&ip=219.230.69.170)