Di Dong

Present Work Address

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Date and place of birth: August 1986, Henan, P. R. China **Nationality**: Chinese

Brief Description

Di Dong is currently an associate professor of institute of automation, Chinese Academy of Sciences. He is also the leader of Radiomics group in Prof. Jie Tian's Lab (www.3dmed.net, www.radiomics.net.cn) of CAS Key Laboratory of Molecular Imaging, Chinese Academy of Sciences, P. R. China. He received his Ph.D. degree in Pattern Recognition and Intelligent Systems from Institute of Automation, Chinese Academy of Sciences, China, in 2013. Dr. Dong has carried out long-term research work in the field of tumor radiomics and medical big data analysis. In recent years, Dr. Dong has published nearly 50 peer-reviewed SCI journal papers, e.g. Annals of Oncology (SCI IF: 13.930), European Respiratory Journal (SCI IF: 12.244), Clinical Cancer Research (SCI IF: 10.199, 3 publications). He has applied for more than 20 patents and 10 software copyright applications in China. Dr. Dong is the member of the Youth Innovation Promotion Association of the Chinese Academy of Sciences and the member of the Radiology Professional Youth Committee of the Research Hospital Society.
Professor Tian's Lab concentrates on the field of Radiomics and molecular imaging. Several main setups in the Lab have been developed including Bioluminescence Tomography, Fluorescence Molecular Tomography, Cerenkov Luminescence Tomography, X-ray Computed Tomography, Optical Projection Tomography, and Photoacoustic Imaging, and multi-modality molecular imaging system.

Professional Experience

Associate Professor **2015.10-Now**
Institute of Automation, Chinese Academy of Sciences, P. R. China
Objective: Radiomics.
Hosts: Jie Tian

Assistant Professor **2013.07-2015.9**
Institute of Automation, Chinese Academy of Sciences, P. R. China
Objective: Radiomics, Optical Projection Tomography (OPT).
Hosts: Jie Tian

Education-Training

PhD Degree **2008.09-2013.07**

Institute of Automation, Chinese Academy of Sciences, P. R. China

Objective: Optical imaging including Optical Projection Tomography (OPT), Selective plane illumination microscope (SPIM), and X-ray Computed Tomography (CT).

Supervisor: Jie Tian and Jorge Ripoll

Visiting Scholar **2010.09-2011.03 (6 months)**

Institute of Electronic Structure and Laser (IESL), Foundation for Research and Technology- Hellas (FORTH), Crete, Greece

Objective: Fast reconstruction of OPT with GPUs. Automated recovery of the rotational center in OPT.

Supervisor: Jorge Ripoll

BE Degree **2004.09-2008.07**

University of Science and Technology Beijing (USTB), Beijing, P. R. China

Graduated in Automation, specific training in Medical Image Processing

Thesis Title: “Development of the medical imaging toolkit (MITK) under Linux”

Supervisor: Heping Liu and Jie Tian

Research Interests

(i) main fields: Radiomics, 3D reconstruction of OPT and SPIM. Parallel computing with GPUs

(ii) other fields: Optical imaging systems including OPT and CT.

Research Activities

2014.06-Now **“Radiomics and its applications”**

Institute of Automation, CAS, P. R. China

National Natural Science Foundation of China under Grant No. 81501616, 81771924

Tasks performed: Radiomics group leader. Establishing cooperation with hospitals and collecting dataset for lung cancer, glioma, breast cancer and other cancers. Developing Radiomics prediction method and software for clinical use.

Supervisor: Jie Tian

2011.04-2014.6 **“in vivo Optical Projection Tomography system”**

Institute of Automation, CAS, P. R. China

Instrument Developing Project of the CAS under Grant No.YZ201164

Tasks performed: OPT group leader. Establishing project plan, budget, schedule of process and detail rules of implementation. Designing the OPT imaging system in Institute of Automation, CAS.

Supervisor: Jie Tian and Jorge Ripoll

2010.10-Now **“in vivo Optical Projection Tomography”**

Institute of Automation, CAS, P. R. China

Fellowship for Young International Scientists of the Chinese Academy of Sciences under Grant No. 2010Y2GA03

Tasks performed: OPT group leader. Development of the fast 3D reconstruction software for helical OPT in IESL, FORTH, Greece.

Supervisor: Jie Tian and Jorge Ripoll

2010.09-2011.03 "Real time in vivo imaging of tubercle bacilli to assess drug efficacy"

Institute for Electronic Structure and Laser (IESL), FORTH, Greece

Financed by Bill and Melinda Gates Foundation

Tasks performed: Development of software for fast reconstruction and an automated recovery method of rotational center in OPT. The software has been applied to the OPT system in IESL, FORTH, Greece

Supervisor: Jorge Ripoll

2007.10-2010.08 "Research of key science and technology issues in molecular imaging"

Institute of Automation, CAS, P. R. China

National Basic Research Program of China (973 program) under Grant No.2006CB705700

Tasks performed: Development of a unified reconstruction framework for multi-modal imaging (C++ language), which includes several reconstruction methods of free-hand ultrasound imaging and CT. This framework has been integrated into the free medical imaging toolkit (MITK, www.mitk.net).

Supervisor: Jie Tian

2007.10-2008.12 "Research and Implementation on Integrated Medical Image and Processing Platform"

Institute of Automation, CAS, P. R. China

National Natural Science Foundation of China under Grant No. 60532050

Tasks performed: Development of the medical imaging toolkit under Linux. Release of the MITK Linux 1.3 beta and MITK Linux 1.4 alpha (www.mitk.net).

Supervisor: Jie Tian

Peer Reviewed Journal Publications (First author, co-first author, corresponding author)

(#these authors contribute equally to this work, *corresponding author)

[1] **Di Dong#**, Lei Tang#, Ziyu Li#, Mengjie Fang#, Jianbo Gao#, Xiuhong Shan#, Xiangji Ying, Yingshi Sun, Jia Fu, Xiaoxiao Wang, Liming Li, Zhenhui Li, Dafu Zhang, Yan Zhang, Zhemin Li, Fei Shan, Zhaode Bu, Jie Tian*, Jiafu Ji*, Development and validation of an individualized nomogram to identify occult peritoneal metastasis in patients with advanced gastric cancer, ***Annals of Oncology***, 2019, 30(3): 431-438. DOI: 10.1093/annonc/mdz001 (SCI IF: 13.930)

[2] Shuo Wang#, Jingyun Shi#, Zhaoxiang Ye#, **Di Dong#**, Dongdong Yu#, Mu Zhou#, Ying Liu, Olivier Gevaert, Kun Wang, Yongbei Zhu, Hongyu Zhou, Zhenyu Liu, Jie Tian*, Predicting EGFR Mutation Status in Lung Adenocarcinoma on CT Image Using Deep Learning, ***European Respiratory Journal***, 2019, 53 (3): 1800986. DOI: 10.1183/13993003.00986-2018 (SCI IF: 12.244)

[3] Hao Peng#, Di Dong#, Mengjie Fang#, Lu Li#, Linglong Tang, Lei Chen, Wenfei Li, Yanping Mao, Wei Fan, Lizhi Liu, Li Tian, Aihua Lin, Ying Sun, Jie Tian*, and Jun Ma*, Prognostic Value of Deep Learning PET/CT-based Radiomics: Potential Role for Future Individual Induction Chemotherapy in Advanced Nasopharyngeal Carcinoma, ***Clinical Cancer Research***, 2019 accepted. DOI:10.1158/1078-0432.CCR-18-3065 (SCI IF: 10.199)

[4] Jiangdian Song#, Jingyun Shi#, **Di Dong**#, Mengjie Fang, Wenzhao Zhong, Kun Wang, Ning Wu, Yanqi Huang, Zhenyu Liu, Yue Cheng, Yuncui Gan, Yongzhao Zhou, Ping Zhou, Bojiang Chen, Changhong Liang, Zaiyi Liu*, Weimin Li*, Jie Tian*, A new approach to predict progression-free survival in stage IV EGFR-mutant NSCLC patients with EGFR-TKI therapy, ***Clinical Cancer Research***, 2018, 24(15): 3583-3592. (SCI IF: 10.199)

[5] Bin Zhang#, Jie Tian#, **Di Dong#**, Dongsheng Gu, Yuhao Dong, Lu Zhang, Zhouyang Lian, Jing Liu, Xiaoning Luo, Shufang Pei, Xiaokai Mo, Wenhui Huang, Fusheng Ouyang, Baoliang Guo, Long Liang, Wenbo Chen, Changhong Liang, Shuixing Zhang*, Radiomics features of multiparametric MRI as novel prognostic factors in advanced nasopharyngeal carcinoma, ***Clinical Cancer Research***, 2017, 23(15): 4259-4269. (SCI IF: 10.199)

[6] Zhenyu Liu#, Shuo Wang#, **Di Dong#**, Jingwei Wei#, Cheng Fang#, Xuezhi Zhou, Kai Sun, Longfei Li, Bo Li*, Meiyun Wang*, Jie Tian*, The applications of radiomics in precision diagnosis and treatment of oncology: Opportunities and challenges, ***Theranostics***, 2019, 9(5): 1303–1322. (SCI IF: 8.537)

[7] Lu Zhang#, **Di Dong#**, Hailin Li#, Jie Tian#, Fusheng Ouyang, Xiaokai Mo, Bin Zhang, Xiaoning Luo, Zhouyang Lian, Shufang Pei, Yuhao Dong, Wenhui Huang, Changhong Liang, Jing Liu*, Shuixing Zhang*, Development and validation of a magnetic resonance imaging-based model for the prediction of distant metastasis before initial treatment of nasopharyngeal carcinoma: A retrospective cohort study, ***EBioMedicine***, 2019, 40: 327-335. (SCI IF: 6.183)

[8] Shuo Wang#, Mu Zhou#, Zaiyi Liu, Zhenyu Liu, Dongsheng Gu, Yali Zang, **Di Dong#**, Olivier Gevaert#, Jie Tian*, Central focused convolutional neural networks: Developing a data-driven model for lung nodule segmentation, ***Medical Image Analysis***, 2017, 40: 172–183. (SCI IF: 5.356)

[9] Yaou Liu#*, **Di Dong#**, Liwen Zhang, Yali Zang, Yunyun Duan, Xiaolu Qiu, Jing Huang, Huiqing Dong, Frederik Barkhof, Chaoen Hu, Mengjie Fang, Jie Tian*, Kuncheng Li, Radiomics in multiple sclerosis and neuromyelitis optica spectrum disorder, ***European Radiology***, accepted 2019. DOI: 10.1007/s00330-019-06026-w (SCI IF: 4.027)

[10] Lu Han#, Yongbei Zhu#, Zhenyu Liu, Tao Yu, Cuiju He, Wenyan Jiang, Yangyang Kan, **Di Dong***, Jie Tian, Yahong Luo*, Radiomic nomogram for prediction of axillary lymph node metastasis in breast cancer, ***European Radiology***, 2019, 29(7):3820-3829. (SCI IF: 4.027)

[11] Li Fan#, Mengjie Fang#, Zhaobin Li, Wenting Tu, Shengping Wang, Wufei Chen, Jie Tian, **Di Dong***, Shiyuan Liu*, Radiomics signature: A biomarker for the preoperative discrimination of lung invasive adenocarcinoma manifesting as a ground-glass nodule, ***European Radiology***, 2019, 29(2): 889-897. (SCI IF: 4.027)

[12] Sainan Cheng#, Mengjie Fang#, Chen Cui, Xiuyu Chen, Gang Yin, Sanjay K. Prasad, **Di Dong***, Jie Tian, Shihua Zhao*, LGE-CMR-derived texture features reflect poor prognosis in hypertrophic cardiomyopathy patients with systolic dysfunction: preliminary results, ***European Radiology***, 2018, 28(11): 4615-4624. (SCI IF: 4.027)

[13] Xinzhong Zhu#*, **Di Dong***, Zhendong Chen#, Mengjie Fang, Liwen Zhang, Jiangdian Song, Dongdong Yu, Yali Zang, Zhenyu Liu, Jingyun Shi*, Jie Tian, Radiomic signature as a diagnostic factor for histologic subtype classification of non-small cell lung cancer, ***European Radiology***, 2018, 28(7): 2772-2778. (SCI IF: 4.027)

[14] Lei Yang#, **Di Dong***, Mengjie Fang#, Yongbei Zhu, Yali Zang, Zhenyu Liu, Hongmei Zhang, Jianming Ying, Xinming Zhao*, Jie Tian*, Can CT-based radiomic signature predict KRAS/NRAS/BRAF mutations in colorectal cancer?, ***European Radiology***, 2018, 28(5): 2058-2067. (SCI IF: 4.027)

[15] Zhicong Li#, Hailin Li#, Shiyu Wang#, **Di Dong#**, Fangfang Yin, An Chen, Siwen Wang, Guangming Zhao, Mengjie Fang, Jie Tian*, Sufang Wu*, Han Wang*, MR-based radiomics nomogram of cervical cancer in prediction of the lymph-vascular space invasion preoperatively, ***Journal of Magnetic Resonance Imaging***, 2019,49(5):1420–1426 (SCI IF: 3.612)

[16] Xiaoxiao Ma#, Liwen Zhang#, Dehui Huang, Jinhao Lyu, Mengjie Fang, Jianxing Hu, Yali Zang, Dekang Zhang, Hang Shao, Lin Ma, Jie Tian*, **Di Dong***, Xin Lou*, Quantitative radiomic biomarkers for discrimination between neuromyelitis optica spectrum disorder and multiple sclerosis, ***Journal of Magnetic Resonance Imaging***, 2019, 49(4): 1113-1121. (SCI IF: 3.612)

[17] Yangyang Kan#, **Di Dong**#, Yuchen Zhang#, Wenyan Jiang, Nannan Zhao, Lu Han, Mengjie Fang, Yali Zang, Chaoen Hu, Jie Tian*, Chunming Li*, Yahong Luo*, Radiomic signature as a predictive factor for lymph node metastasis in early-stage cervical cancer, ***Journal of Magnetic Resonance Imaging***, 2019, 49(1): 304-310. (SCI IF: 3.612)

[18] Yankai Meng#, Yuchen Zhang#，**Di Dong**#，Chunming Li#，Xiao Liang, Chongda Zhang, Lijuan Wan, Xinming Zhao, Kai Xu, Chunwu Zhou*, Jie Tian*, Hongmei Zhang*, Novel radiomic signature as a prognostic biomarker for locally advanced rectal cancer, ***Journal of Magnetic Resonance Imaging***, 2018, 48(3): 605-614. (SCI IF: 3.612)

[19] **Di Dong***, Shouping Zhu, Chenghu Qin, Varsha Kumar, Jens V. Stein, Stephan Oehler, Charalambos Savakis, Jie Tian, Jorge Ripoll, Automated Recovery of the Center of Rotation in Optical Projection Tomography in the Presence of Scattering. ***IEEE Journal of Biomedical and Health Informatics***, 2013, 17(1): 198-204. (SCI IF: 3.451)

[20] Alicia Arranz#, **Di Dong**#, Shouping Zhu, Markus Rudin, Christos Tsatsanis, Jie Tian, Jorge Ripoll*, Helical optical projection tomography. ***Optics Express***, 2013, 21(22):25912-25925. (#these authors contribute equally to this work, *corresponding author) (SCI IF: 3.356)

[21] Yuqi Han#, Zhen Xie#, Yali Zang#, Shuaitong Zhang, Dongsheng Gu, Mu Zhou, Olivier Gevaert, Jingwei Wei, Chao Li, Hongyan Chen, Jiang Du, Zhenyu Liu, **Di Dong***, Jie Tian*, Dabiao Zhou*, Non-invasive genotype prediction of chromosome 1p/19q co-deletion by development and validation of an MRI-based radiomics signature in lower-grade gliomas, ***Journal of Neuro-Oncology***, 2018, 140(2): 297-306. (SCI IF: 3.060)

[22] Chao Wang#, Hailin Li#, Yeerfan Jiaerken, Peiyu Huang, Fei Dong, Lifeng Sun, Yajing Huang, **Di Dong***, Jie Tian*, Minming Zhang*, Contrast-Enhanced CT-based Radiomic Model in Preoperatively Predicting Malignant Potential and Mitotic Count of Gastrointestinal Stromal Tumors, ***Translational Oncology***, 2019, accepted. (SCI IF: 3.071)

[23] Liwen Zhang# , Bojiang Chen#, Xia Liu#, Jiangdian Song，Mengjie Fang, Chaoen Hu, **Di Dong***, Weimin Li*, Jie Tian*, Quantitative biomarkers for prediction of epidermal growth factor receptor mutation in

non-small cell lung cancer, ***Translational Oncology***, 2018, 11(1): 94-101. (SCI IF: 3.071)

[24] Hongyu Zhou#, **Di Dong#**, Bojiang Chen#, Mengjie Fang, Yue Cheng, Yuncun Gan, Rui Zhang, Liwen Zhang, Yali Zang, Zhenyu Liu, Hairong Zheng*,Weimin Li*, Jie Tian*, Diagnosis of distant metastasis of lung cancer: Based on clinical and radiomic features, ***Translational Oncology***, 2018, 11(1): 31-36. (SCI IF: 3.071)

[25] Yongbei Zhu#, Chuntao Man#, Lixin Gong#, Di Dong#, Xinyi Yu, Shuo Wang, Mengjie Fang, Siwen Wang, Xiangming Fang*, Xuzhu Chen*, Jie Tian*, A deep learning radiomics model for preoperative grading in meningioma, ***European Journal of Radiology***, 2019, 116: 128-134. (SCI IF: 2.462)

[26] Xiangde Min#, Min Li#, Di Dong#, Zhaoyan Feng, Peipei Zhang, Zan Ke, Huijuan You, Fangfang Han, He Ma*, Jie Tian*, Liang Wang*, Multi-parametric MRI-based radiomics signature for discriminating between clinically significant and insignificant prostate cancer: Cross-validation of a machine learning method, ***European Journal of Radiology***, 2019, 115: 16-21. (SCI IF: 2.462)

[27] Min Xu#, Mengjie Fang#, Jian Zou, Shudong Yang, Dongdong Yu, Lianzhen Zhong, Chaoen Hu, Yali Zang, **Di Dong***, Jie Tian*, Xiangming Fang*, Using Biparametric MRI Radiomics Signature to Differentiate between Benign and Malignant Prostate Lesions, ***European Journal of Radiology***, 2019, 114: 38-44. DOI：10.1016/j.ejrad.2019.02.032 (SCI IF: 2.462)

[28] Xiao Liang#, Yali Zang#, **Di Dong#**, Liwen Zhang, Mengjie Fang, Xin Yang, Alicia Arranz, Jorge Ripoll, Hui Hui*, Jie Tian*, Stripe Artifact Elimination based on Non-Subsampled Contourlet Transform for Light Sheet Fluorescence Microscopy, ***Journal of Biomedical Optics***, 2016, 21(10): 106005-106005. DOI: 10.1117/1.JBO.21.10.106005 (SCI IF: 2.367)

[29] **Di Dong**, Alicia Arranz, ShouPing Zhu, Yujie Yang, Liangliang Shi, Jun Wang, Chen Shen, Jie Tian*, and Jorge Ripoll*, Vertically Scanned Laser Sheet Microscopy, ***Journal of Biomedical Optics***, 2014, 19(10): 106001-106001.(SCI IF: 2.367)

[30] Bei Wang#, Min Li#, He Ma, Fangfang Han, Yan Wang, Shunying Zhao, Zhimin Liu, Tong Yu, Jie Tian, **Di Dong***, Yun Peng*, Computed tomography-based predictive nomogram for differentiating primary progressive pulmonary tuberculosis from community-acquired pneumonia in children, ***BMC Medical Imaging*** 2019 accepted, (SCI IF: 1.635)

[31] **Di Dong**, Jie Tian*, Yakang Dai, Guorui Yan, Fei Yang, Ping Wu, Unified Reconstruction Framework for Multi-modal Medical Imaging. ***Journal of X-Ray Science and Technology***, 2011, 19(1): 111-126. (*corresponding author) (SCI IF: 1.381)

Other Peer Reviewed Journal Publications (co-author)

(#these authors contribute equally to this work, *corresponding author)

[1] Wuchao Li#, Liwen Zhang#, Chong Tian, Hui Song, Mengjie Fang, Chaoen Hu, Yali Zang, Ying Cao, Shiyuan Dai, Fang Wang, **Di Dong**, Rongpin Wang*, Jie Tian*, Prognostic value of computed tomography radiomics features in patients with gastric cancer following curative resection, ***European Radiology***, 2018. DOI: 10.1007/s00330-018-5861-9. (SCI IF: 4.027)

[2] Jiliang Ren#, Jie Tian#, Ying Yuan#, **Di Dong**, Xiaoxia Li, Yiqian Shi, Xiaofeng Tao*, Magnetic resonance imaging based radiomics signature for the preoperative discrimination of stage I-II and III-IV head and neck squamous cell carcinoma, ***European Journal of Radiology***, 106:1-6, 2018. DOI ：

10.1016/j.ejrad.2018.07.002 (SCI IF: 2.462)

[3] Mengjie Fang#, **Di Dong**#, Chaoting Zeng, Xiao Liang, Xin Yang, Alicia Arranz, Jorge Ripoll, Hui Hui*, Jie Tian*, Polarization-sensitive optical projection tomography for muscle fiber imaging, ***Scientific Reports***, 6:19241, 2016. (SCI IF: 4.122)

[4] Jiangdian Song#, Zaiyi Liu#, Wenzhao Zhong, Yanqi Huang, Zelan Ma, **Di Dong***, Changhong Liang, Jie Tian*, Non-small cell lung cancer: quantitative phenotypic analysis of CT images as a potential marker of prognosis, ***Scientific Reports***, 6: 38282, 2016. (SCI IF: 4.122)

[5] Jingwei Wei#, Guoqiang Yang#, Xiaohan Hao, Dongsheng Gu, Yan Tan, Xiaochun Wang, **Di Dong**, Shuaitong Zhang, Le Wang, Hui Zhang*, Jie Tian*, A multi-sequence and habitat-based MRI radiomics signature for preoperative prediction of MGMT promoter methylation in astrocytomas with prognostic implication, ***European Radiology***, 2018. (SCI IF: 4.027)

[6] Jing Li#, Mengjie Fang#, Rui Wang, **Di Dong**, Jie Tian, Pan Liang, Jie Liu, Jianbo Gao*, Diagnostic Accuracy of Dual-energy CT-based Nomogram to Predict Lymph Node Metastasis Nodular Metastasis in Gastric Cancer, ***European Radiology***, 2018, 28(12): 5241–5249. (SCI IF: 4.027)

[7] Shuaitong Zhang#, Guidong Song#, Yali Zang*, Jian Jia, Chao Wang, Chuzhong Li, Jie Tian, **Di Dong**, Yazhuo Zhang*, Preoperative prediction of non-functioning pituitary adenomas subtypes using a noninvasive radiomics approach, ***European Radiology***, 2017. DOI: 10.1007/s00330-017-5180-6. (SCI IF: 4.027)

[8] Xin Chen#, Mengjie Fang#, **Di Dong**, Lingling Liu, Xiangdong Xu, Xinhua Wei, Xinqing Jiang, Lei Qin*, Zaiyi Liu*, Development and Validation of a MRI-Based Radiomics Prognostic Classifier in Patients with Primary Glioblastoma Multiforme, ***Academic Radiology***, accepted, 2019. DOI: 10.1016/j.acra.2018.12.016 (SCI IF: 1.751)

[9] Xin Chen#, Mengjie Fang#, **Di Dong**, Xinhua Wei, Lingling Liu, Xiangdong Xu, Xinqing Jiang, Jie Tian*, Zaiyi Liu*, A Radiomics signature in preoperative predicting degree of tumor differentiation in patients with non-small cell lung cancer, ***Academic Radiology***, accepted, 2018. (SCI IF: 1.751)

[10] Zhenyu Liu#, Yinyan Wang#, Xing Liu#, Yang Du, Zhenchao Tang, Kai Wang, Jingwei Wei, **Di Dong**, Yali Zang, Jianping Dai, Tao Jiang*, JieTian*, Radiomics analysis allows for precise prediction of epilepsy in patients with low-grade gliomas, ***NeuroImage: Clinical***, 2018, 19: 271-278. (SCI IF: 4.348)

[11] Chen Shen#, Zhenyu Liu#, Min Guan#, Jiangdian Song, Yucheng Lian, Shuo Wang, Zhenchao Tang, **Di Dong**, Lingfei Kong, Meiyun Wang*, Dapeng Shi*, Jie Tian*, 2D and 3D CT Radiomics Features Prognostic Performance Comparison in Non-Small Cell Lung Cancer, ***Translational Oncology***,10(6):886-894, 2017. (SCI IF: 3.025)

[12] Zelan Ma#, Mengjie Fang#, Yanqi Huang, Lan He, Xin Chen, Cuishan Liang, Xiaomei Huang, Zixuan Cheng, **Di Dong**, Changhong Liang, Jiajun Xie, Jie Tian*, Zaiyi Liu*, CT-based Radiomics Signature for Differentiating Borrmann Type IV Gastric Cancer from Primary Gastric Lymphoma, ***European Journal of Radiology***, 91:142-147, 2017. (SCI IF: 2.462)

[13] Xiaoke Ma, **Di Dong**, Evolutionary nonnegative matrix factorization algorithms for community detection in dynamic networks, ***IEEE transactions on knowledge and data engineering***, 2017. DOI: 10.1109/TKDE.2017.2657752 (SCI IF: 2.476)

[14] Xibo Ma, Hui Hui, Yushen Jin, **Di Dong**, Xiaolong Liang, Xin Yang, Ke Tan, Zhifei Dai, Zhen Cheng, Jie

Tian, Enhanced immunotherapy of SM5-1 in hepatocellular carcinoma by conjugating with gold nanoparticles and its in vivo bioluminescence tomographic evaluation, ***Biomaterials***, 87: 46-56, 2016. (SCI IF: 8.557)

[15] Wei Shen, Mu Zhou, Feng Yang, Dongdong Yu, **Di Dong**, Caiyun Yang, Yali Zang, Jie Tian, Multi-crop Convolutional Neural Networks for Lung Nodule Malignancy Suspiciousness Classification, ***Pattern Recognition***, 61:663-673, 2017. (SCI IF:3.096)

[16] Alicia Arranz, **Di Dong**, Shouping Zhu, Charalambos Savakis, Jie Tian, and Jorge Ripoll*, In-vivo Optical Tomography of Small Scattering Specimens: time-lapse 3D imaging of the head eversion process in Drosophila melanogaster, ***Scientific Reports***, 4: 7325, 2014. (SCI IF: 4.122)

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[19] Yakang Dai, Jie Tian*, **Di Dong**, Guorui Yan, Hairong Zheng, Real-time visualized freehand 3D ultrasound reconstruction based on GPU, ***IEEE Transactions on Information Technology in Biomedicine***,14(6): 133 8-1345, 2010. (SCI IF: 2.493)

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Book Chapter (co-author)

[1] Jie Tian, Di Dong, Zhenyu Liu, Yali Zang, Jingwei Wei, Jiangdian Song, Wei Mu, Shuo Wang, Mu Zhou (2018) Radiomics in Medical Imaging—Detection, Extraction and Segmentation. DOI: 10.1007/978-3-319-68843-5_11. In: Suzuki K., Chen Y. (eds) Artificial Intelligence in Decision Support Systems for Diagnosis in Medical Imaging. Intelligent Systems Reference Library, vol 140. Springer, Cham.

Peer Reviewed Journal Publications from group member (non-author)

[1] Li Fan*, Mengjie Fang*, Wenting Tu*, Di Zhang, Yun Wang, Xiuxiu Zhou, Yi Xia, Zhaobin Li, Shiyuan Liu#, Radiomics Signature: A Biomarker for the Preoperative Distant Metastatic Prediction of Stage I Nonsmall Cell Lung Cancer Academic Radiology, 2018. DOI: 10.1016/j.acra.2018.11.004.

[2] Bin Zhang, Xin He, Fusheng Ouyang, Dongsheng Gu, Yuhao Dong, Lu Zhang, Xiaokai Mo, Wenhui Huang, Jie Tian*, Shuixing Zhang*. Radiomic machine-learning classifiers for prognostic biomarkers of advanced nasopharyngeal carcinoma. Cancer Letters. September 10, 2017. Volume 403, Pages 21–27. (SCI IF: 6.375)

[3] Xuezhi Zhou#, Yongju Yi#, Zhenyu Liu#, Wuteng Cao#, Bingjia Lai, Kai Sun, Longfei Li, Zhiyang Zhou, Yanqiu Feng*, Jie Tian*, Radiomics-Based Pretherapeutic Prediction of Non-response to Neoadjuvant Therapy in Locally Advanced Rectal Cancer, Annals of Surgical Oncology, 2019. DOI:

10.1245/s10434-019-07300-3 (SCI IF: 3.857)

[4] Yanqi Huang#, Changhong Liang#, Lan He#, Jie Tian#, Cuishan Liang, Xin Chen, Zelan Ma, and Zaiyi Liu*, Development and Validation of a Radiomics Nomogram for Preoperative Prediction of Lymph Node Metastasis in Colorectal Cancer, ***Journal of Clinical Oncology***, 34(18): 2157-64, 2016. (SCI IF: 26.360)

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[10] Jiangdian Song, Caiyun Yang*, Li Fan, Kun Wang, Feng Yang, Shiyuan Liu*, Jie Tian*. Lung lesion extraction using a toboggan based growing automatic segmentation approach. ***IEEE Transactions on Medical Imaging***, 35 (1):337-353, 2016. (SCI IF: 3.756)

[11] Dongdong Yu, Feng Yang, Caiyun Yang, Chengcai Leng, Jian Cao, Yining Wang, and Jie Tian*, Fast Rotation-Free Feature Based Image Registration Using Improved N-SIFT and GMM Based Parallel Optimization, ***IEEE Transactions on Biomedical Engineering***, 63(8):1653-64, 2016. (SCI IF: 2.468)

[12] Yanqi Huang#, Zaiyi Liu#, Lan He, Xin Chen, Dan Pan, Zelan Ma, Cuishan Liang, Jie Tian, Changhong Liang*, Radiomics Signature: A Potential Biomarker for the Prediction of Disease-Free Survival in Early-Stage (I or II) Non-Small Cell Lung Cancer, ***Radiology***, 2016, 281(3): 947-957. (SCI IF: 7.469)

[13] Ting Li#, Zhenyu Liu#, Jianhong Li, Zhaohui Liu, Zhenchao Tang, Xiaobin Xie, Diya Yang, Ningli Wang, Jie Tian, Junfang Xian, Altered Amplitude of Low-Frequency Fluctuation in Primary Open-Angle Glaucoma: A Resting-State fMRI Study. ***Investigative ophthalmology & visual science***. (2015), 56(1):322-329. (SCI IF: 3.388)

[14] Zhenyu Liu, Wenjuan Wei, Lijun Bai, Ruwei Dai, Youbo You, Shangjie Chen, Jie Tian, Exploring the Pa tterns of Acupuncture on Mild Cognitive Impairment Patients Using Regional Homogeneity. ***Plos One*** (2014), 9(6): e 99335. (SCI IF: 2.766)

[15] Zhenyu Liu, Yumei Zhang, Hao Yan, Lijun Bai, Ruwei Dai, Wenjuan Wei, Chongguang Zhong, Ting Xue, Hu Wang, Yuanyuan Feng, Youbo You, Xinghu Zhang, Jie Tian, Altered topological patterns of brain networks in mild cognitive impairment and Alzheimer's disease: A resting-state fMRI study. ***Psychiatry Research: Neuroimaging*** (2012), 202(2): 118-125. (SCI IF: 2.455)

[16] Zhenyu Liu, Yumei Zhang, Lijun Bai, Hao Yan, Ruwei Dai, Chongguang Zhong, Hu Wang, Wenjuan Wei, Tin g Xue, Yuanyuan Feng, Youbo You, Jie Tian, Investigation of the effective connectivity of resting state networks 20180131 in Alzheimer's disease: a functional MRI study combining independent components analysis and multivariate Grang er causality analysis. ***NMR in Biomedicine*** (2012), 25(12): 1311-1320. (SCI IF: 3.031)

[17] Wang K#, Lu X#, Zhou H#, Gao Y#, Zheng J, Tong M, Wu C, Liu C, Huang L, Jiang T, Meng F, Lu Y, Ai H,

Xie XY, Yin LP, Liang P*, Tian J*,Zheng R*. Deep learning Radiomics of shear wave elastography significantly improved diagnostic performance for assessing liver fibrosis in chronic hepatitis B: a prospective multicentre study. Gut. 2018 May 5. doi: 10.1136/ gutjnl- 2018- 316204 (SCI IF:16.658)

Peer Reviewed Conference Publications from our group

[1] **Di Dong***, Hui Hui, Caiyun Yang, Jin Guo, Yujie Yang, Liangliang Shi, Wei Mu, and Jie Tian, Preliminary Design of a Multimodality Molecular Imaging System. 2014 IEEE 11th International Symposium on Biomedical Imaging (ISBI), 979-982, April 29 2014-May 2 2014. DOI: 10.1109/ISBI.2014.6868036 (Oral report, EI index)

[2] **Di Dong**, Xiaohua Jia, Zhenqiang He, Yujie Yang, Jun Wang, Liangliang Shi, Hui Hui, Jie Tian*, Observing glioma with Optical Projection Tomography, WMIC 2014. [Abstract] (Poster, KSMI Travel Stipend)

[3] **Di Dong**, Alicia Arranz, Yujie Yang, Jun Wang, Liangliang Shi, Jorge Ripoll, Jie Tian*, Application of Optical Projection Tomography to observe in-vivo and ex-vivo specimens, WMIC 2014. [Abstract] (Oral Report, Educational Speaker)

[4] **Di Dong**, Jin Guo, Yujie Yang, Liangliang Shi, Dong Peng, Zhenyu Liu, Jorge Ripoll and Jie Tian*, Analysis of the Rotational Center Location Method in Optical Projection Tomography, 2013 35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), vol., no., pp.3008-3011, 3-7 July 2013. DOI: 10.1109/EMBC.2013.6610173. (Oral report, EI index)

[5] **Di Dong***, Jin Guo, Xibo Ma, Jorge Ripoll, Jie Tian, In vivo optical projection tomography for Drosophila Melanogaster pupa, World Molecular Imaging Congress 2013, Savannah, Georgia, USA, September 18-21, 2013. [Abstract] (Poster)

[6] **Di Dong**, Shouping Zhu, Chenghu Qin, Varsha Kumar, Jens Stein, Stefan Oehler, Charalambos Savakis, Jie Tian, Jorge Ripoll. An automated rotational center location method for Optical Projection Tomography. World Molecular Imaging Congress 2012, Dublin, Ireland, September 5-8, 2012. [Abstract] (Poster)

[7] Jiangdian Song, **Di Dong**, Yanqi Huang, Zaiyi Liu, Jie Tian, Association between tumor heterogeneity and overall survival in patients with non-small cell lung cancer, 2016 IEEE International Symposium on Biomedical Imaging, Czech Republic, April 13-16, 2016, accepted.

[8] Liangliang Shi, **Di Dong**, Yujie Yang, Jun Wang, Alicia Arranz, Jorge Ripoll, and Jie Tian*, Coherent noise remover for Optical Projection Tomography, Proceedings of SPIE Symposium on Medical Imaging, Orlando, USA, February 21-26, 2015.(EI Index)

[9] Yujie Yang, **Di Dong**, Liangliang Shi, Jun Wang, Xin Yang and Jie Tian*, Signal enhancement in Optical Projection Tomography via virtual High Dynamic Range imaging of single exposure, Proceedings of SPIE Symposium on Medical Imaging, Orlando, USA, February 21-26, 2015.(EI Index)

[10] Xiao Liang, **Di Dong**, Hui Hui, Liwen Zhang, Mengjie Fang, Jie Tian, Brain vascular image enhancement

based on gradient adjust with split bregman, Proc. SPIE 9711, Imaging, Manipulation, and Analysis of Biomolecules, Cells, and Tissues IX, 97111D (April 6, 2016); doi:10.1117/12.2211627.(EI Index).

[11] Yujie Yang, **Di Dong**, Liangliang Shi, Jun Wang, Hui Hui, Xin Yang and Jie Tian*, A preliminary study on a dual-modality OPT/micro-CT system, Proceedings of SPIE Symposium on Photonics West, San Francisco, USA, February 7-12, 2015.(EI Index)

[12] Jin Guo#, Yujie Yang#, **Di Dong**, Liangliang Shi, Hui Hui, Min Xu, Jie Tian and Xia Liu*, A projection selection method to improve image quality in OPT, 36th Annual International Conference of the IEEE EMBS, Chicago, USA, August 26-30, 2014. (EI Index)

[13] Xibo Ma, Jie Tian*, Bo Zhang, Xing Zhang, Zhenwen Xue, **Di Dong** and Dong Han. Three-dimensional multi Bioluminescent Sources Reconstruction based on Adaptive Finite Element Method, Proceedings of SPIE Symposium on Medical Imaging 2011, Lake Buena Vista (Orlando), Florida, USA, February 12-17, 2011, Vol. 7965, No. 7965-0B. (Oral report)

[14] Ping Wu, Jie Tian*, Kai Liu, Dong Han, **Di Dong**, Jianghong Zhong. New in vivo optical molecular imaging modalities, General Assembly and Scientific Symposium of International Union of Radio Science 2011, Istanbul, Turkey, 12-17 August, 2011. (Poster)

[15] Jie Tian, **Di Dong**, Xiaoqian Dai, A Unified Reconstruction Platform for Medical Imaging. Presented at: Radiological Society of North America 2010 Scientific Assembly and Annual Meeting; November 28-December 3, 2010 Chicago IL. [Abstract]

[16] Jian Zheng, Jie Tian*, Yakang Dai, Xing Zhang, **Di Dong**, Min Xu. Ultrasound-directed Robotic System for Thermal Ablation of Liver Tumors: a Preliminary Report, Proceedings of SPIE Symposium on Medical Imaging 2010, San Diego, California, USA, February 13-18, 2010. (Oral report)

[17] Dongdong Yu, Mu Zhou, Feng Yang, **Di Dong**, Olivier Gevaert, Zaiyi Liu, Jingyun Shi, Jie Tian, Convolutional neural networks for predicting molecular profiles of non-small cell lung cancer, 2017 IEEE 14th International Symposium on Biomedical Imaging (ISBI 2017), Melbourne, VIC, 2017, pp. 569-572. doi: 10.1109/ISBI.2017.7950585

[18] Wei Shen#, Mu Zhou#, Feng Yang, Caiyun Yang, Jie Tian*. Multi-scale Convolutional Neural Networks for Lung Nodule Classification. Information Processing in Medical Imaging. Springer International Publishing, 588-599, 2015.

Reference publications from other groups

[1] Ke Nie, Liming Shi, Qin Chen, Xi Hu, Salma K Jabbour, Ning J Yue, Tianye Niu, Xiaonan Sun, Rectal Cancer: Assessment of Neoadjuvant Chemoradiation Outcome based on Radiomics of Multiparametric MRI. ***Clinical Cancer Research***, 2016, 22(21): 5256-5264.

[2] Shaoxu Wu, Junjiong Zheng, Yong Li, Hao Yu, Siya Shi, Weibin Xie, Hao Liu, Yangfan Su, Jian Huang, and Tianxin Lin, A Radiomics Nomogram for the Preoperative Prediction of Lymph Node Metastasis in Bladder Cancer, ***Clinical Cancer Research***, 2017. DOI: 10.1158/1078-0432.CCR-17-1510.

[3] Liu Y, Balagurunathan Y, Atwater T, et al. Radiological Image Traits Predictive of Cancer Status in Pulmonary Nodules. Clinical Cancer Research, 2017, 23(6):1442-1449.

Honors and Awards

2017, Member of the Youth Innovation Promotion Association CAS

2014, KSMI Travel Stipend in WMIC 2014

2013, Excellent University Graduates of Beijing (Province level)

2013, Pandeng Scholarship, from Institute of Automation, CAS (University level)

2013, Outstanding Graduate, from Chinese Academy of Sciences (University level)

2013, National scholarship (National level)

2012, Pandeng Scholarship, from Institute of Automation, CAS (University level)

2012, Merit Student, from Graduate School of CAS (University level)

2010, Outstanding Student Leader, from Institute of Automation, CAS (University level)

2008, First rank among 123 students in Automation of USTB, recommended for admission to Institute of Automation, CAS

2008, Excellent Graduate Papers, from USTB (University level)

2008, Excellent University Graduates of Beijing (Province level)

2008, Honorable Mention of Mathematical Contest In Modeling, from the Consortium for Mathematics and Its Applications (International level)

2007, Meritorious of China Undergraduate Mathematical Contest in Modeling, from China Society for Industrial and Applied Mathematics (National level)

2007, National Encouragement scholarship (National level)

2006, Second Prize Award of Beijing Electronic Design Contest for College-student (Province level)

2006, People’s scholarship, from USTB (University level)

2005, Second Prize Award of the 22nd National University Physics Competition (Province level)

2005, First Prize Award of College Physics Competition, from USTB (University level)

2005, Honorable Mention of Beijing College Students’ Graphic Design Competition (Province level)

2005, National scholarship (National level)

2005, 2006 and 2007, Merit Student (three times), from USTB (University level)

Social Activities

2008.07-2013.07, Research assistant/OPT group leader in Intelligent Medical Research Center, Institute of Automation, CAS;

2010-2011, Adviser of Graduate Student Council, Institute of Automation, CAS.

2009-2010, Vice-president of Graduate Student Council, Institute of Automation, CAS.

2008-2009, Literary minister of Graduate Student Council, Institute of Automation, CAS.

2005-2006, Vice-monitor of Class Automation 044, USTB.

Languages spoken

Chinese: Mother tongue.

English: Passed College English Test-6 of China.

Programming languages and environments

Languages: C/C++, Python, R, Matlab, CUDA, Qt

Environments: Windows, Linux