List of publications

Journal publications

(† - as first author, ‡ - as second author)

1. †Evaluation of state-of-the-art segmentation algorithms for left Ventricle infarct from late Gadolinium enhancement MR images, Medical Image Analysis, Vol. 30. pp 95-107, 2016. (IMP=4.5)

2. †Intra-cardiac and peripheral levels of biochemical markers of fibrosis in patients undergoing catheter ablation for atrial fibrillation, Europace, Accepted. IMP=3.7)

3. Biophysical modelling predicts ventricular tachycardia inducibility and circuit morphology: A combined clinical validation and computer modelling approach, J. of Cardiovascular Electrophysiology, Accepted (IMP=3.1)

4. ECG imaging of ventricular tachycardia: evaluation against simultaneous non-contact mapping and CMR derived grey zone. Medical & Biological Engineering & Computing Accepted, (IMP=1.8)

5. †A Randomized Prospective Mechanistic CMR Study Correlating Catheter Stability, Late Gadolinium Enhancement and 3-Year Clinical Outcomes in Robotic-assisted versus Standard Catheter Ablation. Europace, 2015. (IMP=3.7)


7. Benchmark for algorithms segmenting the left atrium from 3D CT and MRI datasets. In IEEE Transactions on Medical Imaging, 2015. (IMP=3.4)


10. †A method to standardize quantification of left atrial scar from delayed-enhancement MR images. IEEE Translational Engineering in Health and Medicine, 2014. (IMP=1.0)


15. Cardiac magnetic resonance and electroanatomical mapping of acute and chronic atrial ablation injury. a histological validation study. European Heart Journal, 2014. (IMP=15.0)


17. ‡3-DOF MR-Compatible Multi-Segment Cardiac Catheter Steering Mechanism IEEE Transactions on Biomedical Engineering, 2013. (IMP=2.3)

18. Automated analysis of atrial late gadolinium enhancement imaging correlates with endocardial voltage and clinical outcomes: a two-center study. Heart Rhythm Journal Vol. 10(8), 2013. (IMP=5.0)
19. Native T1 mapping in differentiation of normal myocardium from diffuse disease in hypertrophic and dilative cardiomyopathy. In JACC: Cardiovascular Imaging 2013. (IMP=6.7)

20. ‡Acute Pulmonary Vein Isolation Is Achieved by a Combination of Reversible and Irreversible Atrial Injury Circulation: Arrhythmia & Electrophysiology, 2012. (IMP=4.5)

Conference proceedings (peer-reviewed)
(† - as first author)


15. †Left atrium pulmonary veins: segmentation and quantification for planning atrial fibrillation ablation. *Proceedings SPIE Medical Imaging, 2009*

16. †Automatic extraction of the left atrial anatomy from MR for atrial fibrillation ablation, *Proceedings of IEEE International Symposium on Biomedical Imaging (ISBI), 2009.*


*Abstracts in clinical conferences (peer-reviewed)*

1. M. Rault, R. Karim et al. Motion correction using hierarchical local affine registration improves image quality and myocardial scar characterisation from T1 maps acquired with MOLLI In Society of Cardiovascular Magnetic Resonance (SCMR) meeting 2013.

2. Z. Chen, R. Karim et al. Simultaneous Non-Contact Mapping Fused with CMR Derived Grey Zone to Explore the Relationship with Ventricular Tachycardia Substrate in Ischaemic Cardiomyopathy, presented at the Society of Cardiovascular Magnetic Resonance (SCMR) meeting 2013.


16. A. Arujuna, R. Karim and et al. Interstitial oedema, delayed enhancement and recurrences following catheter ablation in paroxysmal AF: how are they related? Heart Rhythm Society (HRS) 2011 meeting as oral.

17. A. Arujuna, R. Karim and et al. Assessment of left atrial injury by cardiac MR: a randomised prospective comparison of robotic versus manual AF ablation. Accepted to Heart Rhythm Society (HRS) 2011 meeting as oral.


22. L. Lawes, R. Karim, DW Davies, P. Kanagaratnam, PB Lim, NS Peters, C. Juli. Left atrial function correlates with post-ablation scar detected by DE-MRI. Abstract only. Accepted to ECAS 2011.
