**Gastao Lima da Cruz, Ph.D.**

Postdoctoral Researcher Associate

King’s College London

Flat 9, 74 Hillside, Crouch End Hill

London, United Kingdom

+44 07412984369

e-mail: [gastao.cruz@kcl.ac.uk](mailto:gastao.cruz@kcl.ac.uk)

**EDUCATION AND TRAINING**

**Education**

9/2008 – 7/2011 BSc. in Physics

University of Porto, Porto, Portugal

9/2011 – 9/2012 MSc. in Physics and Engineering in Medicine

University College London, London, United Kingdom

1/2013 – 4/2016 Ph.D. in Motion Corrected cardiac MRI

King’s College London, London, United Kingdom

# State Postdoctoral Training

4/2016 – 12/2016 Postdoctoral Research Assistant

King’s College London, School of Biomedical Engineering, and Imaging Sciences

12/2016 – present Postdoctoral Research Associate

King’s College London, School of Biomedical Engineering and

Imaging Sciences

**RESEARCH INTEREST**

* MR Motion Correction: Motion is a key challenge in Magnetic Resonance Imaging (MRI). My research has focused on developing methods to correct the respiratory and cardiac motion that occurs during an MRI examination, to enable better images and faster scans.
* MR Quantitative Imaging: MR can measure quantitative physical properties which vary between healthy and diseased tissue. Another research focus develops methods to measure multiple tissue properties simultaneously, to enable objective tissue characterization.
* MR Accelerated Imaging: Relative to other imaging modalities, MR acquisitions are slow. My research also seeks novel methods to acquire and reconstruct the MR data to enable high quality images from reduced scan times.

**Honors And Awards**

2014 ISMRM Merit Award, Magna Cum Laude.

2016 ISMRM Merit Award, Summa Cum Laude.

2018 & 2019 Co-author in 6 (2 as first author) of top 100 downloaded MRM papers

2020 ISMRM Merit Award, Summa Cum Laude.

2021 ISMRM Merit Award, 2 Magna Cum Laude.

**MEMBERSHIPS IN PROFESSIONAL SOCIETIES**

2014 – 2021 Trainee member of the ISMRM

2014 – present Trainee member Detection & Correction of Motion

2016 – present Trainee member Cardiac MR

2017 – present Trainee member Quantitative MRI (ISMRM) study groups

2021 ISMRM Junior Fellow

2021 – present Full member of the ISMRM,

# TEACHING

**Teaching**

2015 Tatiana Costa, Undergraduate student. King’s College London

2019 Talent Fong, Undergraduate student. King’s College London

# Institutional Activities and Roles

**Local**

2014 Computer programing (BSc module), King’s College London.

2015 – 2021 MR reconstruction (PhD module), King’s College London., King’s College London.

2016 Ahmed Berradia, Research Supervision, MSc student. King’s College London

2016 – 2021 Imaging with Non-Ionizing Radiation (MSc module), King’sCollege London.

2016 – 2021 Image processing (BSc module), King’s College London.

2017 – 2020Olivier Jaubert*,* Research Supervision, Ph.D. student*.* King’s College London

2017 – 2020 Simultaneous PET-MR course, MR lecture, King’s College London.

2018 CMR level 2 course on Parallel Imaging, King’s College London.

2018 – 2021 MR acquisition (PhD module), King’s College London

2018 – 2021 CMR level 1 course on CMR sequences, King’s College London.

2020 Talent Fong, Research Supervision, MSc student. King’s College London

2021 Lucas Bergsma, Research Supervision, MSc student. King’s College London

**Regional**

2022 Motion Correction Tutorial, ISMRM Workshop in Motion Correction, Oxford, UK.

**International**

2018 MR physics and reconstruction, PSMR training school, Elba, Italy.

2019 MR physics and reconstruction, PSMR training school, Munich, Germany.

**COMMITTEE, ORGANIZATION, AND VOLUNTEER SERVICE**

2021 Organizing the 2022 ISMRM Shark Tank event

2021 Organizing interviews for the 2022 MRM Highlights magazine

**SEMINARS, VISITING PROFESSORSHIPS, AND EXTRAMURAL INVITED PRESENTATION**

**Extramural Invited Presentation**

2020 Parallel imaging educational lecture, 28th ISMRM meeting, Paris, France.

2020 – 2021 MR Reconstruction lecture at IFIP, Conference on system modelling and optimization, Santiago, Chile.

2021 MR acquisition lecture at EMIM, Gottingen, Germany.

2021 MR cardiac reconstruction lecture, BSCMR, London, United Kingdom.

2023 Image reconstruction artefacts educational lecture, 31st ISMRM meeting, Toronto, Canada.

**bibliography**

**Peer Reviewed**

1. Drobnjak I, **Cruz G**, Alexander DC. Optimising oscillating waveform-shape for pore size sensitivity in diffusion-weighted MR. Microporous and Mesoporous Materials. 178:11-14, 2013. DOI:10.1016.
2. **Cruz G**, Atkinson D, Buerger C, Schaeffter T, Prieto C: Accelerated motion corrected three-dimensional abdominal MRI using total variation regularized SENSE reconstruction. Magnetic Resonance in Medicine. 75(4):1484-1498, 2016. PM25996443.
3. Usman M, Ruijsink B, Nazir MS, **Cruz G**, Prieto C. Free breathing whole-heart 3D CINE MRI with self-gated Cartesian trajectory. Magnetic Resonance Imaging. 38:129-137, 2017. PM28034638
4. **Cruz G**, Atkinson D, Henningsson M, Botnar RM, Prieto C: Highly efficient nonrigid motion-corrected 3D whole-heart coronary vessel wall imaging. Magnetic Resonance in Medicine. 77(5):1894-1908, 2017. PM27221073.
5. Munoz C, Neji R, **Cruz G**, Mallia A, Jeljeli S, Reader AJ, Botnar RM, Prieto C: Motion-corrected simultaneous cardiac positron emission tomography and coronary MR angiography with high acquisition efficiency. Magnetic Resonance in Medicine. 79(1):339-350, 2018. PM28426162.
6. **Cruz G**, Schneider T, Bruijnen T, Gaspar AS, Botnar RM, Prieto C. Accelerated magnetic resonance fingerprinting using soft-weighted key-hole (MRF-SOHO). PloS One. 13(8):e0201808, 2018. PM30092033.
7. Correia T, **Cruz G**, Schneider T, Botnar RM, Prieto C: Accelerated nonrigid motion-compensated isotropic 3D coronary MR angiography. Medical physics. 45(1):214-222, 2018. PM29131353.
8. Correia T, Ginami G, **Cruz G**, Neji R, Rashid I, Botnar RM, Prieto C: Optimized respiratory-resolved motion-compensated 3D Cartesian coronary MR angiography. Magnetic Resonance in Medicine. 80(6):2618-2629, 2018. PM29682783.
9. **Cruz G**, Jaubert O, Schneider T, Botnar RM, Prieto C. Rigid motion-corrected magnetic resonance fingerprinting. Magnetic Resonance in Medicine. 81(2):947-961, 2019. PM30229558.
10. Roccia E, Vidya Shankar R, Neji R, **Cruz G**, Munoz C, Botnar R, Goh V, Prieto C, Dregely I. Accelerated 3D T2 mapping with dictionary-based matching for prostate imaging. Magnetic Resonance in Medicine. 81(3):1795-1805, 2019. PM30368900.
11. **Lima da Cruz G**, Bustin A, Jaubert O, Schneider T, Botnar RM, Prieto C. Sparsity and locally low rank regularization for MR fingerprinting. Magnetic Resonance in Medicine. 81(6):3530-3543, 2019. PM30720209.
12. Bustin A\*, **Lima da** **Cruz G**\*, Jaubert O, Lopez K, Botnar RM, Prieto C. High-dimensionality undersampled patch-based reconstruction (HD-PROST) for accelerated multi-contrast MRI. Magnetic Resonance in Medicine. 81(6):3705-3719, 2019. PM30834594.
13. Milotta G, Ginami G, **Cruz G**, Neji R, Prieto C, Botnar RM. Simultaneous 3D whole-heart bright-blood and black blood imaging for cardiovascular anatomy and wall assessment with interleaved T2 prep-IR. Magnetic Resonance in Medicine. 82(1):312-325, 2019. PM30896049.
14. Vidya Shankar R, Roccia E, **Cruz G**, Neji R, Botnar R, Prezzi D, Goh V, Prieto C, Dregely I. Accelerated 3D T2 w-imaging of the prostate with 1-millimeter isotropic resolution in less than 3 minutes. Magnetic Resonance in Medicine. 82(2):721-731, 2019. PM31006906.
15. Qi H, Jaubert O, Bustin A, **Cruz G**, Chen H, Botnar R, Prieto C. Free-running 3D whole heart myocardial T1 mapping with isotropic spatial resolution. Magnetic Resonance in Medicine. 82(4):1331-1342, 2019. PM31099442.
16. Munoz C, **Cruz G**, Neji R, Botnar RM, Prieto C. Motion corrected water/fat whole-heart coronary MR angiography with 100% respiratory efficiency. Magnetic Resonance in Medicine.82(2):732-742, 2019. PM30927310.
17. Oksuz I, Ruijsink B, Puyol-Antón E, Clough JR, **Cruz G**, Bustin A, Prieto C, Botnar R, Rueckert D, Schnabel JA, King AP. Automatic CNN-based detection of cardiac MR motion artefacts using k-space data augmentation and curriculum learning. Medical Image Analysis. 55:136-147, 2019. PM31055126.
18. Qi H, Bustin A, **Cruz G**, Jaubert O, Chen H, Botnar RM, Prieto C. Free-running simultaneous myocardial T1/T2 mapping and cine imaging with 3D whole-heart coverage and isotropic spatial resolution. Magnetic Resonance Imaging. 63:159-169, 2019. PM31425810.
19. Roccia E, Vidya Shankar R, Neji R, **Cruz G**, Munoz C, Botnar R, Goh V, Prieto C, Dregely I. Accelerated 3D T2 mapping with dictionary-based matching for prostate imaging. Magnetic Resonance in Medicine. 81(3):1795-1805, 2019. PM30368900.
20. Bustin A, Ginami G, **Cruz G**, Correia T, Ismail TF, Rashid I, Neji R, Botnar RM, Prieto C. Five-minute whole-heart coronary MRA with sub-millimeter isotropic resolution, 100% respiratory scan efficiency, and 3D-PROST reconstruction. Magnetic Resonance in Medicine. 81(1):102-115, 2019. PM30058252.
21. **Cruz G**, Jaubert O, Botnar RM, Prieto C. Cardiac Magnetic Resonance Fingerprinting: Technical Developments and Initial Clinical Validation. Current Cardiology Reports. 21(9):91, 2019. PM31352620.
22. Jaubert O, Arrieta C, **Cruz G**, Bustin A, Schneider T, Georgiopoulos G, Masci PG, Sing‐Long C, Botnar RM, Prieto C. Multi‐parametric liver tissue characterization using MR fingerprinting: Simultaneous T1, T2, T2\*, and fat fraction mapping. Magnetic Resonance in Medicine. 84(5):2625-2635, 2020. PM32406125.
23. Clough J, Balfour DR, **Cruz G**, Marsden P, Prieto C, Reader A, King A. Weighted Manifold Alignment using Wave Kernel Signatures for Aligning Medical Image Datasets. IEEE Transactions on Pattern Analysis and Machine Intelligence. 42(4):988-997, 2020. PM30629492
24. Oksuz I, Clough JR, Ruijsink B, Anton EP, Bustin A, **Cruz G**, Prieto C, King AP, Schnabel JA. Deep Learning-Based Detection and Correction of Cardiac MR Motion Artefacts During Reconstruction for High-Quality Segmentation. IEEE Transactions on Medical Imaging. 39(12):4001-4010, 2020. PM32746141.
25. **Cruz G**, Jaubert O, Qi H, Bustin A, Milotta G, Schneider T, Koken P, Doneva M, Botnar RM, Prieto C. 3D Free-breathing Cardiac Magnetic Resonance Fingerprinting. NMR in Biomedicine. 33(10:e4370, 2020. PM32696590.
26. Jaubert O, **Cruz G**, Bustin A, Schneider T, Lavin B, Koken P, Hajhosseiny R, Doneva M, Rueckert D, Botnar RM, Prieto C. Water–fat Dixon cardiac magnetic resonance fingerprinting. Magnetic Resonance in Medicine. 83(6):2107-2123, 2020. PM31736146.
27. Bustin A, Rashid I; **Cruz G**; Hajhosseiny R; Correia T; Neji R; Rajani R; Ismail T; Botnar R; Prieto C. 3D whole-heart isotropic sub-millimeter resolution coronary magnetic resonance angiography with non-rigid motion-compensated PROST. Journal of Cardiovascular Magnetic Resonance. 99(1):24, 2020. PM32299445.
28. Nordio G, Schneider T, **Cruz G**, Correia T, Bustin A, Prieto C, Botnar RM, Henningsson M. Whole-heart T1 mapping using a 2D fat image navigator for respiratory motion compensation. Magnetic Resonance in Medicine. 83(1):178-187, 2020. PM31400054.
29. HajhosseinyR, BustinA, MuñozC, RashidI, **CruzC**, ManningW, PrietoC and BotnarRM. Coronary Magnetic Resonance Angiography – Technical Innovations Leading us to the Promised Land? JACC Cardiovascular Imaging. 13(12):2653-2672, 2020. PM32199836.
30. Qi H, Bustin A, Kuestner T, Hajhosseiny R, **Cruz G**, Kunze K, Neji R, Botnar RM, Prieto C. Optimising oscillating waveform-shape for pore size sensitivity in diffusion weighted MR-resolution 3D whole-heart T1ρ mapping. Journal of Cardiovascular Magnetic Resonance. (22(1):12, 2020. PM32014001.
31. Qi H, Fuin N, **Cruz G**, Pan J, Kuestner T, Bustin A, Botnar RM, Prieto C. Non-rigid respiratory motion estimation of whole-heart coronary MR images using unsupervised deep learning. IEEE Transactions on Medical Imaging. 40(1):444-454, 2021. PM33021937.
32. **Cruz G**, Qi H, Jaubert O, Kuestner T, Schneider T, Botnar RM, Prieto C: Generalized low‐rank nonrigid motion‐corrected reconstruction for MR fingerprinting. Magnetic Resonance in Medicine. 87(2): 746-763, 2021. PM34601737.
33. Munoz C, Qi H, **Cruz G**, Kuestner T, Botnar RM, Prieto C: Self-supervised learning-based diffeomorphic non-rigid motion estimation for fast motion-compensated coronary MR angiography. Magnetic resonance imaging. 85:10-18, 2021. PM34655727.
34. Hajhosseiny R, Rashid I, Bustin A, Munoz C, **Cruz G**, Nazir MS, Grigoryan K, Ismail TF, Preston R, Neji R, Kunze K. Clinical comparison of sub-mm high-resolution non-contrast coronary CMR angiography against coronary CT angiography in patients with low-intermediate risk of coronary artery disease: a single center trial. Journal of Cardiovascular Magnetic Resonance. May 17;23(1)57, 2021. PM33993890.
35. Qi H, Hajhosseiny R, **Cruz G**, Kuestner T, Kunze K, Neji R, Botnar R, Prieto C: End‐to‐end deep learning nonrigid motion‐corrected reconstruction for highly accelerated free‐breathing coronary MRA. Magnetic Resonance in Medicine. 86(4):1983-1996, 2021. PM34096095.
36. Soyak R, Navruz E, Ersoy EO, **Cruz G**, Prieto C, King AP, Unay D, Oksuz I: Channel Attention Networks for Robust MR Fingerprint Matching. IEEE Transactions on Biomedical Engineering. Sept 30;PP, 2021. PM34591755.
37. Küstner T, Pan J, Qi H, **Cruz G**, Gilliam C, Blu T, Yang B, Gatidis S, Botnar R, Prieto C: LAPNet: Non-rigid Registration derived in k-space for Magnetic Resonance Imaging. IEEE Transactions on Medical Imaging. 40(12):3686-3697, 2021. PM34242163.
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39. Qi H, **Cruz G**, Botnar R, Prieto C. Synergistic multi-contrast cardiac magnetic resonance image reconstruction. Philosophical Transactions. Series A, Mathematical, physical and engineering Sciences. Jun28;379(2200):20200197, 2021. PM33966456.
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41. West DJ, **Cruz G**, Teixeira RPAG, Schneider T, Tournier JD, Hajnal JV, Prieto C, Malik SJ: An MR fingerprinting approach for quantitative inhomogeneous magnetization transfer imaging. Magnetic Resonance in Medicine. 87(1):220-235, 2022. PM34418151.
42. Hajhosseiny R, Munoz C, **Cruz G**, Khamis R, Kim WY, Prieto C, Botnar RM. Coronary Magnetic Resonance Angiography in Chronic Coronary Syndromes. Frontiers in Cardiovascular Medicine. Aug 17;8:682924, 2021. PM34485397.
43. Velasco C, **Cruz G,** Jaubert O, Plaza BL, Botnar RM, Prieto, C:. Simultaneous comprehensive liver T1, T2, T2\*, T1ρ and Fat Fraction characterization with Magnetic Resonance Fingerprinting. Magnetic Resonance in Medicine. November 18. Doi:10.1002/mrm.29089. Online ahead of print, 2021. PM34792212.
44. Velasco C, **Cruz G,** Lavin B, Hua A, Fotaki A, Botnar RM, Prieto C. Simultaneous T1, T2, and T1ρ cardiac magnetic resonance fingerprinting for contrast agent–free myocardial tissue characterization. Magnetic Resonance in Medicine. November 19. Doi:10.1002/mrm.29091. Online ahead of print, 2021. PM34799854.
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46. **Cruz G**, Velasco C, Lavin B, Jaubert O, Botnar RM, Prieto C. Myocardial T1, T2, T2\*, and fat fraction quantification via low‐rank motion‐corrected cardiac MR fingerprinting. Magnetic Resonance in Medicine. 2022 Jun;87(6):2757-74.
47. **Cruz G**, Hammernik K, Kuestner T, Velasco C, Hua A, Ismail TF, Rueckert D, Botnar RM, Prieto C. Single‐heartbeat cardiac cine imaging via jointly regularized nonrigid motion‐corrected reconstruction. NMR in Biomedicine. 2023:e4942.
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49. Phair A, **Cruz G**, Qi H, Botnar RM, Prieto C. Free‐running 3D whole‐heart T1 and T2 mapping and cine MRI using low‐rank reconstruction with non‐rigid cardiac motion correction. Magnetic Resonance in Medicine. 2023 Jan;89(1):217-32.
50. Lo Presti S, Eck BL, Reyaldeen R, Nguyen C, Tang WW, Flamm SD, Seiberlich N, **Cruz G,** Prieto C, Kwon DH. Fingerprinting MINOCA: Unraveling Clues With Quantitative CMR. Case Reports. 2023 Feb 1;7:101722.
51. **Cruz G**, Hua A, Munoz C, Ismail TF, Chiribiri A, Botnar RM, Prieto C. LOW‐RANK motion correction for accelerated free‐breathing first‐pass myocardial perfusion imaging. Magnetic Resonance in Medicine. 2023 Jul;90(1):64-78.
52. Machado I, Puyol-Antón E, Hammernik K, **Cruz G**, Ugurlu D, Olakorede I, Oksuz I, Ruijsink B, Castelo-Branco M, Young A, Prieto C. A deep learning-based integrated framework for quality-aware undersampled cine cardiac MRI reconstruction and analysis. IEEE Transactions on Biomedical Engineering. 2023 Oct 2.
53. Fujita S, Sano K, **Cruz G**, Velasco C, Kawasaki H, Fukumura Y, Yoneyama M, Suzuki A, Yamamoto K, Morita Y, Arai T. MR Fingerprinting for Contrast Agent–free and Quantitative Characterization of Focal Liver Lesions. Radiology: Imaging Cancer. 2023 Nov 24;5(6):e230036.
54. Rashid I, **Cruz G**, Seiberlich N, Hamilton JI. Cardiac MR Fingerprinting: Overview, Technical Developments, and Applications. Journal of Magnetic Resonance Imaging. 2023 Dec 28.
55. Nadel J, Wang X, Saha P, Bongers A, Tumanov S, Giannotti N, Chen W, Vigder N, Chowdhury MM, **Cruz G**, Velasco C. Molecular magnetic resonance imaging of myeloperoxidase activity identifies culprit lesions and predicts future atherothrombosis. European Heart Journal-Imaging Methods and Practice. 2024 Jan;2(1):qyae004.
56. Christodoulou AG, **Cruz G**, Arami A, Weingärtner S, Artico J, Peters D, Seiberlich N. The Future of CMR: All-in-One vs. Real-Time CMR (Part 1). Journal of Cardiovascular Magnetic Resonance. 2024 Jan 17:100997.
57. Hamilton JI, **Cruz G**, Rashid I, Walker J, Rajagopalan S, Seiberlich N. Deep image prior cine MR fingerprinting with B1+ spin history correction. Magnetic Resonance in Medicine. 2023 Dec 15.

**Submitted**

**Book Chapters**

1. **Cruz G**, Roujol S, Botnar RM, Prieto C. Specialized Mapping Methods in the Heart, Chapter 5 of “Quantitative Magnetic Resonance Imaging”. Elsevier
2. Munoz C, **Cruz G**, Prieto C, Botnar RM. Innovations in Cardiovascular MR and PET-MR imaging, Chapter of “Hybrid Cardiac Imaging”. Springer Nature.
3. **Cruz G**, Doneva M, Akcakaya M, Prieto C. MR as an inverse problem, Chapter of “MRI Reconstruction: Theory, Methods and Applications” (in preparation)
4. **Cruz G**, Kuestner T, Botnar RM, Prieto C. Cardiac Imaging, Chapter of “Motion Correction in MR: Correction of position, motion and dynamic changes” (in preparation)

**Abstracts/Poster Presentations**

1. **Cruz G**, Atkinson D, Kolbitsch C, Schaeffter T, Prieto C. Comparison of non-rigid motion compensated reconstructions for 3D abdominal MRI. InProceedings of the 22nd Annual Meeting of ISMRM, Milan, Italy 2014.
2. **Cruz G**, Atkinson D, Schaeffter T, Prieto C. Improved motion compensated reconstruction for 3D abdominal MRI using a self-navigated non-rigid motion model. InProceedings of the 23rd Annual Meeting of ISMRM, Toronto, Canada 2015.
3. **Cruz G**, Botnar R, Prieto C. 3D Whole-Heart Water Fat Coronary MRA at 3T with 100% Scan Efficiency. InProceedings of the 24th Annual Meeting of ISMRM, Singapore, 2016.
4. Correia T, **Cruz G**, Botnar R, Prieto C. Accelerated 3D Coronary MRA using non-rigid motion corrected regularized reconstruction. InProceedings of the 24th Annual Meeting of ISMRM, Singapore, 2016.
5. **Cruz G**, Atkinson D, Henningsson M, Botnar R, Prieto C. Highly efficient nonrigid motion corrected 3D whole-heart coronary vessel lumen and wall imaging. InProceedings of the 24th Annual Meeting of ISMRM, Singapore, 2016.
6. Usman M, **Cruz G**, Prieto C. Highly efficient free breathing whole heart CINE MRI with self-gated 3D CASPR-TIGER trajectory. InProceedings of the 24th Annual Meeting of ISMRM, Singapore, 2016.
7. **Cruz G**, Gaspar A, Bruijnen T, Botnar R, Prieto C. Accelerated Magnetic Resonance Fingerprinting using soft-weighted key-hole (MRF-SOHO). InProceedings of the 25th Annual Meeting of ISMRM, Honolulu, USA 2017.
8. Correia T, **Cruz G**, Munoz C, Botnar R, Prieto C. Accelerated 3D Coronary MRA using variable density cartesian sampling. InProceedings of the 25th Annual Meeting of ISMRM, Honolulu, USA 2017.
9. **Cruz G**, Botnar R, Prieto C. Motion corrected magnetic resonance fingerprinting using soft-weighted key-hole (MRF-McSoho). InProceedings of the 25th Annual Meeting of ISMRM, Honolulu, USA 2017.
10. Escobar CM, Neji R, **Cruz G**, Botnar R, Prieto C. Respiratory motion-corrected simultaneous cardiac PET and coronary MR angiography using a hybrid 3T PET-MR. InProceedings of the 25th Annual Meeting of ISMRM, Honolulu, USA 2017.
11. Nordio G, **Cruz G**, Prieto C, Schneider T, Botnar R, Henningsson M. Whole-heart T1 mapping using 2D fat image navigator with 100% scan efficiency. InProceedings of the 25th Annual Meeting of ISMRM, Honolulu, USA 2017.
12. Nordio G, Schneider T, **Cruz G**, Correia T, Prieto C, Botnar R, Henningsson M. 3D myocardial T1 mapping using a 2D fat image for respiratory motion correction. InProceedings of the 26th Annual Meeting of ISMRM, Paris, France 2018.
13. Bustin A, **Cruz G**, Ginami G, Correia T, Rashid I, Neji R, Botnar R, Prieto C. 3D-patch-based low-rank reconstruction (PROST) for highly-accelerated CMRA acquisition. InProceedings of the 26th Annual Meeting of ISMRM, Paris, France 2018.
14. Shankar RV, **Cruz G**, Neji R, Roccia E, Botnar R, Goh V, Prieto C, Dregely I. Accelerated 3D 1 mm isotropic T2w-Imaging of the Prostate in less than 3 min. InProceedings of the 26th Annual Meeting of ISMRM, Paris, France 2018.
15. Roccia E, Shankar RV, Neji R, **Cruz G**, Botnar R, Prieto C, Goh V, Dregely I. Accelerated 3D T2 mapping with dictionary-based matching for prostate imaging. InProceedings of the 26th Annual Meeting of ISMRM, Paris, France 2018.
16. Ginami G, Bustin A, **Cruz G**, Neji R, Botnar RM, Prieto C. Accelerated non-rigid respiratory motion corrected simultaneous bright-and black-blood 3D whole-heart coronary MR angiography. InProceedings of the 26th Annual Meeting of ISMRM, Paris, France 2018.
17. Correia TM, **Cruz G**, Ginami G, Rashid I, Neji R, Botnar R, Prieto C. Assessment of respiratory motion-resolved and nonrigid motion-corrected 3D Cartesian coronary MRA. InProceedings of the 26th Annual Meeting of ISMRM, Paris, France 2018.
18. **Cruz** **G**, Bustin A, Jaubert O, Schneider T, Botnar R, Prieto C. Locally low rank regularization for magnetic resonance fingerprinting. InProceedings of the 26th Annual Meeting of ISMRM, Paris, France 2018.
19. Jaubert O, **Cruz G**,Schneider T, Botnar R, Rueckert D, Prieto C. MORE-MRF: Towards motion resolved cardiac multi-parametric mapping with magnetic resonance fingerprinting. InProceedings of the 26th Annual Meeting of ISMRM, Paris, France 2018.
20. Correia T, Ginami G, Neji R, **Cruz G**, Botnar R, Prieto C. Optimized respiratory-resolved motion-compensated 3D cartesian coronary MRA. InProceedings of the 26th Annual Meeting of ISMRM, Paris, France 2018.
21. **Cruz G**, Jaubert O, Malik S, Schneider T, Botnar R, Prieto C. Rigid motion corrected low rank magnetic resonance fingerprinting. InProceedings of the 26th Annual Meeting of ISMRM, Paris, France 2018.
22. Sigovan M, **Cruz G**, Schneider T, Abascal JF, Mory C, Krishnamoorty G, Botnar R, Douek P, Prieto C, Boussel L. Self‐gated respiratory resolved 5D Flow MRI using the 3D spiral phyllotaxis trajectory. InProceedings of the 26th Annual Meeting of ISMRM, Paris, France 2018.
23. Munoz C, Neji R, **Cruz G**, Botnar RM, Prieto C. Simultaneous acquisition of motion-corrected coronary MRA and respiratory-resolved attenuation maps for whole-heart PET-MR imaging. InProceedings of the 26th Annual Meeting of ISMRM, Paris, France 2018.
24. **Cruz G**, Botnar R, Prieto C. Zero-dimensional self-navigated autofocus for motion corrected magnetic resonance fingerprinting. InProceedings of the 26th Annual Meeting of ISMRM, Paris, France 2018.
25. Bustin A, **Cruz G**, Jaubert O, Lopez K, Botnar R, Prieto C. High-dimensionality undersampled patch-based reconstruction (HD-PROST) for accelerated multi-contrast magnetic resonance imaging. InProceedings of the 27th Annual Meeting of ISMRM, Montreal, Canada 2019.
26. Jaubert O, **Cruz G**, Bustin A, Schneider T, Botnar R, Prieto C. Dixon-cMRF: cardiac tissue characterization using three-point Dixon MR fingerprinting. InProceedings of the 27th Annual Meeting of ISMRM, Montreal, Canada 2019.
27. Jaubert O, **Cruz G**, Bustin A, Schneider T, Koken P, Doneva M, Botnar R, Prieto C. Cardiac motion resolved magnetic resonance fingerprinting with joint reconstruction jMORE-MRF. InProceedings of the 27th Annual Meeting of ISMRM, Montreal, Canada 2019.
28. Bustin A, Correia T, Rashid I, **Cruz G**, Neji R, Botnar R, Prieto C. Highly accelerated 3D whole-heart isotropic sub-millimeter CMRA with non-rigid motion correction. InProceedings of the 27th Annual Meeting of ISMRM, Montreal, Canada 2019.
29. Qi H, Jaubert O, Bustin A, **Cruz G**, Chen H, Botnar R, Prieto C. Free-running 3D whole heart myocardial T1 mapping with isotropic spatial resolution. InProceedings of the 27th Annual Meeting of ISMRM, Montreal, Canada 2019.
30. **Cruz G**, Jaubert O, Schneider T, Bustin A, Botnar R, Prieto C. Toward 3D free-breathing cardiac magnetic resonance fingerprinting. InProceedings of the 27th Annual Meeting of ISMRM, Montreal, Canada 2019.
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