

Curriculum vitae

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Education

Year	Degree	Field of Study (Thesis title and advisor)	Institution
1999-2006	MD	General Medicine	2 nd Faculty of Medicine, Charles University, Prague, Czech Republic
2002-2007	MSc	Mathematical and Computer Modeling in Physics and Engineering (<i>Cardiac MRI Data Segmentation Using Partial Differential Equation of Allen-Cahn Type, supervised by M. Beneš</i>)	Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic
2007-2010	PhD	Applied mathematics (<i>Personalized Biomechanical Heart Modeling for Clinical Applications, supervised by D. Chapelle</i>)	University Paris 6, France
2022	HDR (Habilitation à Diriger des Recherches)	Mechanical and Energetic Engineering (<i>Biomechanical modeling for comprehensive assessment and clinical management in cardiology</i>)	Institut Polytechnique de Paris, France

Postdoctoral Training

Year(s)	Titles	Specialty/Discipline (Lab PI for postdoc research)	Institution
2006-2007	Research fellow	Radiodiagnostic and Interventional Radiology Department (MRI lab)	Institute for Clinical and Experimental Medicine in Prague, Czech Republic
2007-2010	PhD	Biomechanical Heart Modeling	French National Institute for Digital Sciences Inria, Paris-Rocquencourt
2011-2015	Post-doc (research associate)	Division of Imaging Sciences and Biomedical Engineering	King's College London

Honors and Awards

Year	Name of Honor/Award	Awarding Organization
2006	2 nd Prix de Médecine <i>(a month scientific visit at MRI research center, University Paris-Sud, hosted by Prof. Jacques Bittoun)</i>	French Embassy in Czech Republic
2006	3 rd place at the Czech and Slovak Student Scientific Conference in Mathematics (category: Applied Mathematics)	Comenius University in Bratislava, Slovak Republic
2020	<i>Best poster award at VPH 2020 conference for PhD candidate Maria Gusseva (my role: PhD supervisor)</i>	<i>Virtual Physiological Human (VPH) institute</i>
2023	<i>Best oral presentation (2nd prize) at Functional Imaging and Modeling of Heart international conference (FIMH 2023, Lyon, France) for Maria Gusseva (my role: senior author)</i>	<i>Functional Imaging and Modeling of Heart (FIMH) scientific board</i>

Faculty Academic Appointments

Year(s)	Academic Title	Department	Academic Institution
2015-2018	Junior research scientist (~assistant professor)	Research Team MÈDISIM	French National Institute for Digital Sciences Inria, Paris-Saclay, France

2018-2020	Senior research scientist (~associate professor)	Research Team M \overline{E} DISIM	French National Institute for Digital Sciences Inria, Paris-Saclay, France
2021-	Assistant professor	Dept. of Pediatrics, Division of Pediatric Cardiology	UT Southwestern Medical Center, Dallas, TX, USA

Adjunct / part-time Appointments

2015-2020 (20% FTE)	Clinical research fellow and lecturer	School of Biomedical Engineering & Imaging Sciences	King's College London, UK
2020-	Researcher	Dept. of Mathematics, Faculty of Nuclear Sciences and Physical Engineering	Czech Technical University in Prague
2020- Adjunct appointment	Visiting lecturer	School of Biomedical Engineering & Imaging Sciences	King's College London, UK
2021- Adjunct appointment	External collaborator	Research Team M \overline{E} DISIM	French National Institute for Digital Sciences Inria, Paris-Saclay, France
2023- Adjunct appointment	Researcher	Faculty of Mathematics and Physics (Mathematical modeling group)	Charles University, Prague, Czech Republic

Major Administrative/Leadership Positions

Year(s)	Position Title	Institution
2006-	Scientific mentor (participating on scientific direction) for interdisciplinary collaboration between Mathematical modeling group and MRI department	Institute for Clinical and Clinical Medicine IKEM in Prague (MRI) and Czech Technical University in Prague, (mathematical modeling)
2015-2020	In charge of scientific collaboration between Congenital Heart Disease group at St Thomas & Evelina Children's hospital (King's College London) and Inria (cardiac modeling research team M \overline{E} DISIM)	King's College London (UK) and French National Institute for Digital Sciences (Inria)
2015-2020	Coordinator of clinical-modeling projects in the M \overline{E} DISIM research team	French National Institute for Digital Sciences Inria, Paris-Saclay
2018-2022	PI of TOFMOD Associated Team (created between Inria and UTSW Medical Center Dallas)	French National Institute for Digital Sciences Inria, Paris-Saclay and UTSW Medical Center Dallas
2023-	Board of Directors	International Conference on Functional Imaging and Modeling of Heart (FIMH)
2023-	Co-chair of Research Facilitation Committee of Heart Center (Divisions of	UT Southwestern Medical Center and Children's Medical Center, Dallas, TX

	Pediatric Cardiology and Cardiothoracic Surgery)	
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Grant Review Activities

Year(s)	Name of Review Committee	Organization
2020	Swiss National Science Foundation grant	Swiss National Science Foundation grant
2020	Domain Applied and Engineering Sciences (NWO Domain TTW)	Dutch Research Council (NWO)
2023	CE45 panel - Interfaces: mathématiques, sciences du numérique-biologie, santé (Interfaces: mathematics; digital biology sciences; health)	Agence Nationale de la Recherche (ANR), France

Editorial Activities

Year(s)	Journal Name
<u>Editor/Associate Editor</u>	
<u>Editorial Board</u>	
<u>Ad Hoc Reviewer</u>	
2011-	Lecture Notes in Computer Science (Medical Image Computing & Computer Assisted Intervention conference, MICCAI)
2013-	IEEE Transactions on Medical Imaging (TMI)
2014-	Biomechanics and Modeling in Mechanobiology (BMMB)
2014	Journal of the Mechanical Behavior of Biomedical Materials (JMBBM)
2016	Journal of Biomechanical Engineering
2017	Computational and Mathematical Methods in Medicine
2017	Computer Methods and Programs in Biomedicine
2017	Computers & Structures (C&S)
2017	Journal of Cardiovascular Translational Research
2018-	Simulation: Transactions of the Society for Modeling and Simulation International
2018	Journal of Imaging
2019	Lecture Notes in Computer Science (Functional Imaging and Modeling of Heart conference, FIMH)
2019	Philosophical Transactions of the Royal Society A

2020-	Cardiovascular Engineering and Technology
2021-	Computers in Biology and Medicine
2021	Magnetic Resonance in Medicine
2022	Annals of Biomedical Engineering
2022	Journal of Asian Pacific Society of Cardiology
2023-	Medical Image Analysis
2023	International Journal of Engineering Science

Teaching Activities

Year(s)	Activity
<u>University teaching</u>	
2022	Cardiovascular physiology for medical students (UT Southwestern Medical Center Dallas)
2020	Doctoral school on "Modeling Materials" (Charles University, Heidelberg and Sorbonne Universities, Kácov, Czech Republic)
2004-2005	Tutorials for "Basic mechanics", Czech Technical University, Faculty of Civil Engineering
<u>Medical and graduate school didactic and small group teaching</u>	
2013-2018	Regular weekly teaching on optimization of MR image acquisition and post-processing for PhD candidates and clinicians (King's College London)
<u>Qualifying examination committees</u>	
2020	Examiner of PhD thesis of José Ivan Colorado Cervantes entitled <i>Theoretical modeling and numerical simulation of cardiac mechanics: toward patient-specific clinical applications for motion assessment</i> , Roma, Italy
2014	Examiner and reviewer of PhD thesis of Ruth Aris, <i>Electromechanical Large Scale Computational Models of the Ventricular Myocardium</i> , Univesitat Politècnica de Catalunya, Spain
2018	Examiner of master's thesis of Radek Galabov, <i>Analysis of errors during blood velocity and flow measurement using Magnetic resonance: The influence of sequence parameters, technical limits and flow characteristics</i> , Czech Technical University in Prague, Czech Republic
2018	Examiner of master's thesis of Katerina Solovska (Skardova), <i>Non-rigid Registration of Medical MRI Data</i> , Czech Technical University in Prague, Czech Republic
2020	Examiner of bachelor thesis of Niel van der Meer, <i>Mathematical Modelling in Electrocardiology</i> , Czech Technical University in Prague, Czech Republic

<u>Graduate student trainees</u>	
2021 January-May	Internship of bioengineering student at UTSW Medical Center, Dallas (R. Waugh) on “Modeling for Multisystem inflammatory syndrome in children (MIS-C)”
2017 June-August	Internship of bioengineering student at UTSW Medical Center, Dallas (R. M. Tompkins) on “ <i>Reduced-order modeling for tetralogy of Fallot patients</i> ”
2015 January-April	Internship of bioengineering student Gabriel Valdez Alonzo on “ <i>Heart failure modeling</i> ” at Inria France
2009	Internship of engineering student (G. Lecourt) on “ <i>Cardiac Resynchronisation Therapy Modeling</i> ” at Inria France
2008	Internships of engineering student (M. Sinclair) on “ <i>Validation of Biomechanical Heart Model</i> ” at Inria France
<u>Postgraduate medical education (graduate & continuing medical education)</u>	
<u>PhD supervision</u>	
2018 - 2023	Supervisor for PhD of K. Skardova (Czech Technical University in Prague) together with T. Oberhuber on “ <i>Numerical and machine learning methods for medical image analysis</i> ”.
2017 - 2022	Supervisor of M. Gusseva (Inria Saclay and UTSW Dallas) with D. Chapelle (Inria) and T. Hussain (UTSW) on “ <i>Patient-specific cardiovascular biomechanical modeling to augment interpretation of clinical data and assist planning interventions for patients with congenital heart disease</i> ”.
2016 - 2021	Supervisor of A. Le Gall, M.D. , with D. Chapelle (Inria) and E. Gayat (Lariboisiere Hospital Paris), on “ <i>Coupling data measured in operating theatre with patient-specific biomechanical model of heart and vessels to augment haemodynamic monitoring of patients undergoing general anaesthesia</i> ”.
2020 - current	Consultant for PhD of A. Jarolimova (Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic) on “ <i>Efficient numerical methods and computational tools for solving patient-specific problems in haemodynamics</i> ”.
2014-2018	Consultant for PhD of B. Ruijsink, M.D. , at King’s College London in the thesis entitled “ <i>The role of subpulmonary ventricle in exercise and the impact of its absence in Fontan circulation</i> ”, with full supervision of ≥ 1 chapter.
2012-2018	Consultant for PhD of J. Wong, M.D. , at King’s College London in the thesis entitled “ <i>Characterising the function of the systemic right ventricle in hypoplastic left heart syndrome using cardiac magnetic resonance imaging</i> ”, with full supervision of ≥ 1 chapter.
2016 (May–September)	Supervising a clinical-application chapter in PhD of B. Burtschell (Inria France).
2012-2015	Consultant for PhD thesis of a biomechanics student M. Hadjicharalambous at King's College London.

Invited Lectures

Year(s)	Title	Location
<u>International</u>		
2022 July	Heart biomechanics to predict the effect of intervention in valvular heart diseases	World Congress of Biomechanics 2022 (Taipei, Taiwan), invited by Profs. M. Nash and G. Plank (session "Clinical Applications of Heart Biomechanics")
2022 April	Modeling Biomaterials in Clinical Problems of Cardiology	Biomedical Engineering seminar, Ecole Polytechnique, Palaiseau, France (invited by Prof. Abdul Barakat)
2022 April	Medical image data and biomechanical modeling in translational cardiovascular research	Seminar or Laboratoire Imagerie Biomédicale (LIB), Sorbonne Université, Paris, FR (invited by Drs. Lori Bridal and Nadjia Kachenoura)
2021 June	Biomechanical modeling for congenital heart diseases	Cardiac Atlas Project: Workshop on Congenital Heart Disease (within Functional Imaging and Modeling of Heart conference FIMH2021, Stanford, USA, online)
2021 May	MRI data and biomechanical modeling in translational cardiovascular research	Workshop CardioMRI, Millennium Nucleus in Cardiovascular Magnetic Resonance, Santiago de Chile (online), plenary talk
2021 Feb.	Translational Cardiovascular Modeling	Virtual Physiological Human institute (VPHi) Keynote webinar series (https://www.youtube.com/watch?v=hMaGytP3KJQ)
2020 Feb.	TOFMOD: Tetralogy of Fallot – Modeling of Diseases	International doctoral school on “Modelling of biomaterials”, Kacov, Czech Republic
2018 Dec.	Cardiac modeling in clinical practice: Physiology, biophysics & patient-specific management	Children’s Heart Center, Motol University Hospital in Prague, Czech Rep. (invited by Prof. J. Janousek)
2018 Dec.	Towards clinical applications of cardiac modeling	Mathematical Institute of Charles University in Prague, Czech Republic (invited by Prof. J. Malek)
2018 Oct.	Towards clinical applications of cardiac modeling	International Symposium on Modeling, Simulation and Optimization of the Cardiovascular System, Lukasklause Magdeburg, Germany
2018 Oct.	Cardiac modeling for clinical applications: Can biophysics contribute to patients’ management?	French Congress of Radiology
2018 Sept.	Clinical cardiac modeling	Institute for Clinical and Experimental Medicine in Prague (IKEM), Czech Republic (invited by Prof. J. Kautzner)
2016	Biophysical modeling of cardiac function for clinical applications	UT Southwestern Medical Center, Dallas, Division of Pediatric Cardiology (invited by Profs. T. Hussain and G. Greil)

2014	Patient-specific biomechanical heart modeling in clinics	German Heart Center, Munich
2014	Clinical cardiac modeling	Technical University Munich, Germany (invited by <i>Prof. W. Wall</i>)
2013	Necas Continuum Mechanics Seminar: Biophysical modelling of cardiovascular system in clinical setup	Mathematical Institute of Charles University in Prague (invited by <i>Prof. J. Malek</i>)
2010	Clinical applications of a biomechanical heart model	The First International Workshop on the Role and Impact of Mathematics in Medicine, Paris
<u>National</u>		
2023	Biomechanical modeling for comprehensive assessment and clinical management in cardiology	UT Austin (invited by Prof. Michael Sacks)
<u>Regional/Local</u>		

Technological and Other Scientific Innovations

Innovation
Patent, if any, pending or awarded /If described in print/on web, provide citation
R. Chabiniok, D. Chapelle, A. Le Gall, P. Moireau, F. Vallee. Cardiac device. US, Patent no: US20200253490A1, 2020.
R. Chabiniok, D. Chapelle, A. Le Gall, P. Moireau, F. Vallee. Dispositif cardiaque. France, Patent no: 1758006, 2017.

Service to the Community

Year(s)	Role	Organization or institution
May include a brief, one-sentence description of each role if needed (optional)		
2025 (June)	<i>In charge of organizing International Conference on Functional Imaging and Modeling of Heart (FIMH).</i>	<i>Dallas, USA</i>
2021 (June)	Organizer of a special theme session on “Multisystem Inflammatory Syndrome in Children (MIS-C, PIMS-TS)” during Functional Imaging and Modeling of Heart conference (FIMH2021)	Stanford, USA

2020 (August)	Organizer of “ <i>TOFMOD workshop</i> ” with 14 international speakers and > 50 participants (satellite event of Virtual Physiological Human Conference VPH 2020)	Paris, France
2020 (February)	Co-organizer of 1-week international doctoral school on “Modelling of biomaterials” (with focus on mechanical and chemical processes), in charge of cardiovascular program	Charles University in Prague & Heidelberg University & Sorbonne University
2018	Co-chair of the section “Research group in cardiac imaging”	French Congress of Radiology (JFR), Paris, France
2018	Organizer of “MRI & Modelling workshop” with 14 international speakers	Inria Saclay Ile-de-France
2013	Organizer of a mini-workshop on “Imaging and clinical modeling” (3 international speakers)	Mathematical Institute of Charles University in Prague, Czech Republic

Bibliography

Peer-Reviewed Publications

My research has been published within the communities of biomechanical modeling, image processing, magnetic resonance imaging and clinical medicine. All of these communities publish their original research works in peer-reviewed journals. The order of authors depends on their contribution, while the senior author is listed as the last.

In addition to the peer-reviewed journals, the communities of biomechanical modeling and image processing publish their original research works in peer-reviewed conference proceedings (typically of 8-10 pages) and these papers are recognized by these communities (e.g., cited by other authors in respected peer-reviewed journals). The conference outputs in the communities of clinical medicine (and also magnetic resonance in medicine) are typically only short abstracts (sometimes extended to a few pages). These abstracts are not listed in this document.

Original Research Articles

1.	P. Eichler, R. Galabov, R. Fučík, K. Škardová, T. Oberhuber, P. Pauš, J. Tintěra, and R. Chabiniok : “Non-Newtonian turbulent flow through aortic phantom: Experimental and computational study using magnetic resonance imaging and lattice Boltzmann method”. <i>Computers and Mathematics with Applications</i> , 136: 80–94, 2023. https://doi.org/10.1016/j.camwa.2023.01.031
2.	N. Gaddum, D. Dillon-Murphy, R. Arm, I. Rafiq, R. Chabiniok , G. Morgan, T. Schaeffter, T. Hussain: In Silico Modelling of Aortic Strain and Strain Rate in Aortic Coarctation Treated with Stent Angioplasty with Comparison to Clinical Cohorts. <i>Applications in Engineering Science</i> , 2022. https://doi.org/10.1016/j.apples.2022.100123

3.	R. Chabiniok , B. Burtschell, D. Chapelle, and P. Moireau: Dimensional reduction of a poromechanical cardiac model for myocardial perfusion studies. <i>Applications in Engineering Science</i> , 2022. https://doi.org/10.1016/j.apples.2022.100121
4.	R. Chabiniok* , J. Hron, A. Jarolímová, J. Málek, K. R. Rajagopal, K. Rajagopal, H. Švihlová, K. Tůma: Three-dimensional flows of incompressible Navier-Stokes fluids in tubes containing a sinus, with varying slip conditions at the wall. <i>International Journal of Engineering Science</i> , 180: pp. 103479, 2022. https://doi.org/10.1016/j.ijengsci.2022.103749 <i>*Alphabetical order of authors (mathematical community)</i>
5.	D. Marlevi, J. Mariscal-Harana, N.S. Burris, J. Sotelo, B. Ruijsink, M. Hadjicharalambous, L. Asner, E. Sammut, R. Chabiniok , S. Uribe, R. Winter, P. Lamata, J. Alastruey, D. Nordsletten: Altered aortic hemodynamics and relative pressure in patients with dilated cardiomyopathy. <i>Journal of Cardiovascular Translational Research</i> , 15(4): pp. 692–707 2022. https://doi.org/10.1007/s12265-021-10181-1
6.	M. Gusseva, T. Hussain, C. Hancock Friesen, G. Greil, D. Chapelle, R. Chabiniok : Prediction of ventricular mechanics after pulmonary valve replacement in tetralogy of Fallot by biomechanical modeling: A step towards precision healthcare. <i>Annals of Biomedical Engineering</i> , 49(12): pp. 3339-3348, 2021. https://doi.org/10.1007/s10439-021-02895-9
7.	M. Gusseva, T. Hussain, C. Hancock Friesen, P. Moireau, A. Tandon, G. Greil, K. Hasbani, D. Chapelle, R. Chabiniok : Biomechanical Modeling to Inform Pulmonary Valve Replacement in Tetralogy of Fallot Patients after Complete Repair. <i>Canadian Journal of Cardiology</i> , 37: pp.1798-1807, 2021. https://doi.org/10.1016/j.cjca.2021.06.018
8.	C. Mauger, S. Govil, R. Chabiniok , K. Gilbert, S. Hegde, T. Hussain, A.D. McCulloch, C.J. Occleshaw, J. Omens, J. Perry, K. Pushparajah, A. Suinesiaputra, A.A. Young: Right-Left Ventricular Shape Variations in Tetralogy of Fallot: Associations with Pulmonary Regurgitation. <i>Journal of Cardiovascular Magnetic Resonance</i> , 23(105), 2021. https://doi.org/10.1186/s12968-021-00780-x
9.	D.A. Castellanos, K. Skardova, A. Bhattaru, E. Berberoglu, G. Greil, A. Tandon, J. Dillenbeck, B. Burkhardt, T. Hussain, M. Genet, R. Chabiniok : Left ventricular torsion obtained using equilibrated warping in patients with repaired Tetralogy of Fallot. <i>Pediatric Cardiology</i> , 42(6): pp.1275-1283, 2021. https://doi.org/10.1007/s00246-021-02608-y
10.	R. Chabiniok* , J. Hron, A. Jarolímová, J. Málek, K. R. Rajagopal, K. Rajagopal, H. Švihlová, K. Tůma: A benchmark problem to evaluate implementational issues for three-dimensional flows of incompressible fluids subject to slip boundary conditions. <i>Applications in Engineering Science</i> , 6: p. 100038, 2021. https://doi.org/10.1016/j.apples.2021.100038 <i>*Alphabetical order of authors (mathematical community)</i>
11.	K. Skardova, T. Oberhuber, J. Tintera, R. Chabiniok : Signed-distance function based non-rigid registration of image sequences with varying image intensity. <i>Series S of Discrete and Continuous Dynamical Systems</i> , 14 (3): pp.1145-1160, 2021. https://doi.org/10.3934/dcdss.2020386
12.	H. Mella, J. Mura, H. Wang, M. Taylor, R. Chabiniok , J. Tintera, J. Sotelo, and S. Uribe: HARP-I: A Harmonic Phase Interpolation Method for the Estimation of Motion from Tagged MR Images. <i>IEEE Transactions on Medical Imaging</i> , 40(4): 1240-1252, 2021. https://doi.org/10.1109/TMI.2021.3051092
13.	A. Le Gall, F. Vallee, K. Pushparajah, T. Hussain, A. Mebazaa, D. Chapelle, E. Gayat, R. Chabiniok : Monitoring of cardiovascular physiology augmented by a patient-specific biomechanical model during general anesthesia. A proof of concept study. <i>PLoS ONE</i> 15(5): e0232830, 2020. https://doi.org/10.1371/journal.pone.0232830

14.	R. Fučík, R. Galabov, P. Pauš, P. Eichler, J. Klinkovský, J. Tintěra, R. Chabiniok : Investigation of phase contrast magnetic resonance imaging underestimation of turbulent flow through the aortic valve phantom: Experimental and computational study by using lattice Boltzmann method. <i>Magnetic Resonance Materials in Physics, Biology and Medicine (MAGMA)</i> , 33(5): pp.649-662, 2020. https://doi.org/10.1007/s10334-020-00837-5
15.	B. Ruijsink, K. Zugaj, J. Wong, K. Pushparajah, T. Hussain, P. Moireau, R. Razavi, D. Chappelle, R. Chabiniok : Dobutamine stress testing in patients with Fontan circulation augmented by biomechanical modeling. <i>PLoS ONE</i> , 15(2):e0229015, 2020. https://doi.org/10.1371/journal.pone.0229015
16.	M. R. Pfaller, J. M. Hoermann, M. Weigl, A. Nagler, R. Chabiniok , C. Bertoglio, W. A. Wall: The importance of the pericardium for cardiac biomechanics. <i>Biomechanics and Modeling in Mechanobiology</i> , 18(2): 503–529, 2019. https://doi.org/10.1007/s10237-018-1098-4
17.	J. Wong, R. Chabiniok , S.M. Tibby, K. Pushparajah, E. Sammut, D.S. Celermajer, D. Giese, T. Hussain, G.F. Greil, T. Schaeffter, R. Razavi: Exploring kinetic energy as a new marker of cardiac function in the single ventricle circulation, <i>Journal of applied physiology (Bethesda, Md. : 1985)</i> , 125: 889–900, 2018. https://doi.org/10.1152/jappphysiol.00580.2017
18.	J.M. Hoermann, C. Bertoglio, M. Kronbichler, M.R. Pfaller, R. Chabiniok , W.A. Wall: An adaptive Hybridizable Discontinuous Galerkin approach for cardiac electrophysiology, <i>International Journal For Numerical Methods In Biomedical Engineering</i> , 34(5):e2959, pp. 1–18, 2018, doi: 10.1002/cnm.2959. 2018.
19.	L. Asner, M. Hadjicharalambous, R. Chabiniok , D. Peressutti, E. Sammut, J. Wong, G. Carr-White, R. Razavi, A. King, N. Smith, J. Lee, D. Nordsletten: Patient-Specific Modeling For Left Ventricular Mechanics Using Data-Driven Boundary Energies, <i>Computer Methods in Applied Mechanics and Engineering</i> , 314: pp. 269–295, 2017. https://doi.org/10.1016/j.cma.2016.08.002
20.	M. Hadjicharalambous, L. Asner, R. Chabiniok , E. Sammut, J. Wong, D. Peressutti, E. Kerfoot, A. King, J. Lee, R. Razavi, N. Smith, G. Carr-White, D. Nordsletten: Non-invasive Model-Based Assessment of Passive Left-Ventricular Myocardial Stiffness in Healthy Subjects and in Patients with Non-ischemic Dilated Cardiomyopathy, <i>Annals of biomedical engineering</i> , 45(3):605– 618, 2017. https://doi.org/10.1007/s10439-016-1721-4
21.	J. Wong, R. Chabiniok , A. de Vecchi, N. Dedieu, E. Sammut, T. Schaeffter, R. Razavi: Age-related changes in intra-ventricular kinetic energy: a physiological or pathological adaptation?, <i>American Journal of Physiology (Heart and Circulatory Physiology)</i> : 310(6): H747-H755, 2016. https://doi.org/10.1152/ajpheart.00075.2015
22.	L. Asner, M. Hadjicharalambous, R. Chabiniok , D. Peressutti, E. Sammut, J. Wong, G. Carr-White, P. Chowiencyk, J. Lee, A. King, N. Smith, R. Razavi, D. Nordsletten: Estimation of passive and active properties in the human heart using 3D tagged MRI, <i>Biomechanics and Modeling in Mechanobiology</i> , 15(5):1121–1139, 2016. DOI: 10.1007/s10237-015-0748-z
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24.	A.N. Cookson, J. Lee, C. Michler, R. Chabiniok , E. Hyde, D. Nordsletten, N. P. Smith: A Spatially-Distributed Computational Model to Quantify Behaviour of Contrast Agents in MR Perfusion Imaging, <i>Medical Image Analysis</i> , Volume 18(7), pp. 1200–1216, 2014. https://doi.org/10.1016/j.media.2014.07.002

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