

Curriculum Vitae

Name: Patrick Richard Hunziker

Birth: May 22th, 1963 (Place: Zürich, Switzerland)

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Email: Patrick.Hunziker@unibas.ch

Education:

1982-1988 Medical School at the University of Zurich, Switzerland

1989 Doctoral Dissertation: "Produktion and Charakterisation of monoklonal antiidiotypic antibodies against the cytochrome C antibody 2.61"
University of Zurich, Switzerland

Degrees:

1988 Federal Physician Diploma (Eidg.Staatsexamen, Arztdiplom)

1989 Doctorate in Medicine from the University of Zürich, Switzerland

1996 Specialist in Internal Medicine (FMH)

1997 Specialist in Cardiology (FMH)

1988-1989 American Physician Examination (ECFMG/FMGEMS)

2001 Specialist in Intensive Care Medicine (FMH)

2001 Private lecturer at the University of Basel

2008 Professor for cardiology and intensive care medicine of the University of Basel

Experience:

1988-1990 Hämostaseology, University Hospital Zürich

1990-1991 Internal Medicine, University Hospital Zürich

1991-1993 Internal Medicine/Intensive care medicine, City Hospital Triemli, Zürich

1993-1995 Cardiology, City Hospital Triemli, Zürich, Prof.O.Bertel

1995-1996 Cardiology, University Hospital Basel

1997-1997 Cardiology Fellow, Harvard Medical School, Massachusetts General Hospital, Boston USA

1998-2000 Consultant in Cardiology, University Hospital Basel

2000-2001 Intensive Care Medicine, Medical ICU, University Hospital Geneva

2001- current Deputy Chief, Medical Intensive Care Unit, University Hospital, Basel

Award:

1. Finalist at the Young Investigator Award Competition of the American College of Cardiology (1999)
2. Winner of the Price of the Swiss Cardiology Foundation (2002)
3. Senior author of the winning paper at the Young Investigator's Award 2002 of the European Society (2002)

4. Winner of the Pfizer Research Prize (2004)
5. Multiple Conference Awards for Research in Clinical Medicine, Computer Vision in Medicine, and Nanotechnology Research

Membership in Professional Associations / Research:

1. Swiss Federation of Physicians FMH
2. Swiss Cardiology Society SGK;
3. European Society of Cardiology ESC
4. President, European Society of Nanomedicine (ESNAM)
5. Leader of the Digital Echocardiography Imaging Group at the University Hospital Basel
6. Leader of Medical Nanotechnology Research Group “Physics in Medicine” University Hospital, Basel, Switzerland
7. Scientific Advisory Board NanoTera Initiative
8. Scientific Advisory Board NFP64

Research fields:

1. Diagnosis and therapy of acute disease in an intensive care setting, in particular acute coronary syndromes and inflammatory disease
2. Noninvasive clinical imaging of heart disease and atherosclerosis
3. Development and clinical translation of diagnostic and therapeutic nanosystems for targeted delivery/therapy for atherosclerosis, inflammation and cancer
4. Computational analysis of biomedical data
5. Application of high tech (nanotech, computing, “converging technologies”) in medicine: its technical potential, philosophical underpinnings, and ethical consequences.

Publication list since 2007

1. Wang XY, Wolf M, Hunziker P. A novel ex vivo aorta perfusion model: a proof-of-concept study focusing on atherosclerosis. 2011 (submitted)
2. Hunziker P. Nanomedicine - shaping the medicine of the future. *Z Med Phys.* 2011 Dec 28.
3. Marsch SC, Steiner L, Bucher E, Pargger H, Schumann M, Aebi T, Hunziker PR, Siegemund M. Succinylcholine versus rocuronium for rapid sequence intubation in intensive care: a prospective, randomized controlled trial. *Crit Care.* 2011 Aug 16;15(4):R199.
4. Streiff S, Tschan F, Hunziker S, Buehlmann C, Semmer NK, Hunziker P, Marsch S. Leadership in medical emergencies depends on gender and personality. *Simul Healthc.* 2011 Apr;6(2):78-83.
5. Egli, S., Fischer, B., Hartmann, S., Hunziker, P., Meier, W. and Rigler, P. (2010), Towards Targeted Drug Delivery by Covalent Ligand-Modified Polymeric Nanocontainers. *Macromolecular Symposia*, 296: 278–285. doi: 10.1002/masy.201051039
6. Morozov OV, Unser M, Hunziker P. Reconstruction of large, irregularly sampled multidimensional images. A tensor-based approach. *IEEE Trans Med Imaging.* Epub 2010 Sep 27. Print 2011 Feb;30(2):366-74. Epub 2010 Sep 27.
7. Morozov O, Hunziker P. Tensor B-spline reconstruction of multidimensional signals from large irregularly sampled data. *Physics and Engineering of Microwaves, Millimeter and Submillimeter Waves (MSMW), Proceedings of International Kharkov Symposium.* 2010, p 1-3; DOI 10.1109/MSMW.2010.5546013
8. Oleksii V. Morozov, Patrick R. Hunziker Solving Tensor Structured Problems with Computational Tensor Algebra. 2010, arXiv:1001.5460
9. Osthoff M, Bernsmeier C, Marsch SC, Hunziker PR., Levosimendan as treatment option in severe verapamil intoxication: a case report and review of the literature. *Case Report Med.* 2010;2010. pii: 546904. Epub 2010 Aug 11.
10. Fischer M, Rüegg S, Czaplinski A, Strohmeier M, Lehmann A, Tschan F, Hunziker PR, Marsch SC., Inter-rater reliability of the Full Outline of UnResponsiveness score and the Glasgow Coma Scale in critically ill patients: a prospective observational study. *Crit Care.* 2010;14(2):R64. Epub 2010 Apr 14.
11. Schuetz P, Affolter B, Hunziker S, Winterhalder C, Fischer M, Balestra GM, Hunziker P, Marsch S. Serum procalcitonin, C-reactive protein and white blood cell levels following hypothermia after cardiac arrest: a retrospective cohort study. *Eur J Clin Invest.* 2010 Apr;40(4):376-81. Epub 2010 Feb 10.
12. Hunziker S, Bühlmann C, Tschan F, Balestra G, Legeret C, Schumacher C, Semmer NK, Hunziker P, Marsch S. Brief leadership instructions improve cardiopulmonary resuscitation in a high-fidelity simulation: a randomized controlled trial. *Crit Care Med.* 2010 Apr;38(4):1086-91. Erratum in: *Crit Care Med.* 2010 Jun;38(6):1510.

13. Lüscher F, Hunziker S, Gaillard V, Tschan F, Semmer NK, Hunziker PR, Marsch S., Proficiency in cardiopulmonary resuscitation of medical students at graduation: a simulator-based comparison with general practitioners. *Swiss Med Wkly.* 2010 Jan 23;140(3-4):57-61.
14. Hunziker P. Nanomedicine: shaping the future of medicine. (Editorial). *Eur.J. Nanomedicine* 2009; 2:1, 4
15. Broz P., Benhaim N., Santini F, Marsch S., Scheffler K., Meier W., Hunziker P., Polymer vesicles loaded with precipitated gadolinium nanoparticles: A novel targetspecific contrast agent for magnetic resonance imaging. *Eur.J. Nanomedicine* 2(2009); 43-48.
16. Zimmermann M, Hunziker P, Delamarche E., Autonomous capillary system for one-step immunoassays. *Biomed Microdevices.* 2009 Feb;11(1):1-8.
17. Li Zeng, Hunziker P et al Crack edge extraction and measure of industrial CT image based on ridgelet transform. *Journal of Computation Information Systems* 2009, 5:1393-1401.
18. Li Zeng, Baodong Liu, Shilin Mo 1, Hunziker PR. An Adaptive Load Balancing Tactics for Parallel SIRT and Parallel Block ART. *Journal of Computing and Information*
19. Matthias Pfisterer, Hans Peter Brunner-La Rocca, Peter Rickenbacher, Patrick Hunziker, Christian Mueller, Fabian Nietlispach, Gregor Leibundgut, Franziska Bader, Christoph Kaiser, Long-term benefit–risk balance of drug-eluting vs. bare-metal stents in daily practice: does stent diameter matter? Three-year follow-up of BASKET. *Eur Heart J* (2009) 30: 16-24 doi: 10.1093/eurheartj/ehn516
20. Hunziker P. Nanomedicine – the challenge of complexity. (Editorial). *Eur.J.Nanomedicine* 2009; 2:2, 3
21. Jeger RV, Brunner-La Rocca HP, Hunziker PR, Tsakiris DA, Kaiser CA, Pfisterer ME; BASKET Investigators. Drug-eluting stents and glycoprotein IIb/IIIa inhibitors in vessels at low anatomic risk: a retrospective analysis of previously published data from the Basel Stent Kosten Effektivitäts Trial. *Clin Ther.* 2009 Dec;31(12):2886-93.
22. Sabina Hunziker, Franziska Tschan, Norbert K Semmer, Roger Zobrist, Martin Spychiger, Marc Breuer, Patrick R Hunziker and Stephan C Marsch. Hands-on time during cardiopulmonary resuscitation is affected by the process of teambuilding: a prospective randomised simulator-based trial. *BMC Emergency Medicine* 2009, 9:3doi:10.1186/1471-227X-9-3
23. Micha Tobias Maeder; Patrick Hunziker. Sepsis-associated myocardial dysfunction: from bedside to bench. *Journal of Organ Dysfunction* 2009; 5:79 - 90
24. Daniel Schmid, Hanspeter Lang, Stephan Marsch, Christoph Gerber, Patrick Hunziker. Diagnosing disease by nanomechanical olfactory sensors – system design and clinical validation. *Eur J Nanomed* 2008; 1: 43-47. DOI 10.3884/0001.11
25. Patrick Hunziker. Nanomedicine: The application of the Nanosciences to the

- Benefit of the Patient. *Eur J Nanomed* 2008; 1: 2. DOI 10.3884/0001.1
26. Nadav Ben-Haim, Pavel Broz, Stephan Marsch, Wolfgang Meier, Patrick Hunziker. Cell-Specific Integration of Artificial Organelles Based on Functionalized Polymer Vesicles. *Nano Lett.* 2008 Apr 30 DOI: 10.1021/nl080105g
 27. Jörg Ziegler, Martin Zimmermann, Patrick Hunziker, Emmanuel Delamarche. High-Performance Immunoassays Based on Through-Stencil Patterned Antibodies and Capillary Systems. *Anal Chem.* 2008 Feb 1
 28. Pavel Broz, Nadav Ben-Haim, Mariusz Grzelakowski, Stephan Marsch, Wolfgang Meier, Patrick Hunziker. Inhibition of Macrophage Phagocytotic Activity by a Receptor-targeted Polymer Vesicle-based Drug Delivery Formulation of Pravastatin. *J Cardiovasc Pharmacol.* 2008 Mar;51 (3):246-252 DOI: 10.1021/nl0619305
 29. Pfisterer M, Brunner-La Rocca HP, Rickenbacher P, Hunziker P, Mueller C, Nietlispach F, Leibundgut G, Bader F, Kaiser C; BASKET., Long-term benefit-risk balance of drug-eluting vs. bare-metal stents in daily practice: does stent diameter matter? Three-year follow-up of BASKET. *Eur Heart J.* 2009 Jan;30(1):16-24. Epub 2008 Nov 25.
 30. Jeger RV, Radovanovic D, Hunziker PR, Pfisterer ME, Stauffer JC, Erne P, Urban P; AMIS Plus Registry Investigators., Ten-year trends in the incidence and treatment of cardiogenic shock. *Ann Intern Med.* 2008 Nov 4;149(9):618-26.
 31. Raban V. Jeger; Dragana Radovanovic; Patrick R. Hunziker; Matthias E. Pfisterer; Jean-Christophe Stauffer; Paul Erne; Philip Urban, for the AMIS Plus Registry Investigators. Ten-Year Trends in the Incidence and Treatment of Cardiogenic Shock *Annals of Internal Medicine* 2008; 149: 618-626
 32. S Rüegg, P Hunziker, S Marsch, C Schindler. Association of environmental factors with the onset of status epilepticus. *Clinical Neurophysiology*, 2008
 33. M. Zimmermann, P. Hunziker, E. Delamarche. Valves for autonomous capillary systems. *Microfluidics and Nanofluidics* 2008; 5: 395-402
 34. M. Arigovindan, M. Sühling, C. Jansen, P. Hunziker, M. Unser, "Full Motion and Flow Field Recovery from Echo Doppler Data," *IEEE Transactions on Medical Imaging*, vol. 26, no. 1, pp. 31-45, January 2007.
 35. Broz P, Marsch S, Hunziker P. Targeting of vulnerable plaque macrophages with polymer-based nanostructures. *Trends Cardiovasc Med.* 2007 Aug;17(6):191-197
 36. Broz P, Hunziker P. Nanotechnologies for targeted delivery of drugs. In: CSSR Kumar, ed. *Nanomaterials for Medical Diagnosis and Therapy*, Vol 10. Wiley-VCH. 2007D.
 37. Zimmermann M, Schmid H, Hunziker P, Delamarche E. Capillary pumps for autonomous capillary systems. *Lab Chip.* 2007 Jan;7(1):119-25.
 38. Wolf M, Zimmermann M, Delamarche E, Hunziker P.. Screening of cell surface receptors using micromosaic immunoassays. *Biomed. Microdev.* 2007 Apr;9(2):135-41. (7 citations)
 39. Zimmermann, M., Hunziker, P. and Delamarche, E. Valves for autonomous microfluidic capillary systems. *Proceedings μ TAS 2007, Paris*, 1492-1494.

40. Zimmermann, M., Hunziker, P. and Delamarche, E. Advanced flow control of liquids in microfabricated capillary pumps. Proceedings of the μ TAS 2006, Tokyo, Japan, 612-614.

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1. Kiowski W., Sütsch G., Hunziker P., Müller P., Kim J., Oechslin E., Schmitt R., Jones R. et al. Evidence for endothelin-1-mediated vasoconstriction in severe chronic heart failure. *Lancet* 1995;346:732-736. ISSN-Nr. 0140-6736
2. Hunziker P., Bertel O. Heart failure in elderly patients .[Die Herzinsuffizienz beim alten Menschen]. *Schweiz. Med. Rundschau für Medizin (Praxis)* 1995; 84, 1272-1276, ISSN-Nr. 1013-2058
3. Meili E. O., Hunziker P. et al. Substitution therapy with recombinant Factor VII concentrate in congenital factor VII deficiency . [Substitutionstherapie bei Patienten mit schwerem Faktor VII-Mangel]. *Ellipse* 1990; 25,345-349
4. Hunziker P., Bertel O. Secondary prevention in chronic coronary heart disease. *Schweiz. Med. Wochenschrift* 1997;127, 254-60. ISSN-Nr. 0036-7672
5. Hunziker P., Pfisterer M. . Severe congestive heart failure as a medical emergency. [Die akute schwere Herzinsuffizienz]. *Schweiz. Med. Rundschau (Praxis)* 1997; 86, 189-95.ISSN-Nr. 1013-2058
6. Hunziker P., Grädel Ch., Müller-Brand J., Buser P., Pfisterer M. . Improved myocardial ischemia detection by combined physical and mental stress testing. *Am J. Cardiol* 1998; 82: 109-113.ISSN-Nr. 0002-9149
7. Scherrer-Crosbie M., Steudel W., Hunziker P.R., Foster G.P., Garrido L., Liel-Cohen N., Zapol W.M., Picard M.H. Determination of Right Ventricular Structure and Function in Normoxic and Hypoxic Mice: a Transesophageal Echocardiographic Study. *Circulation* 1998; 98:1015-1021.ISSN-Nr. 0009-722
8. Hunziker P., Spöndlin B., Hediger S. et al. Long-term follow-up and dobutamine stress echocardiography of 19mm prosthetic heart valves. *Echocardiography* 1998, 15:617-624. ISSN-Nr. 0742-2822
9. Sütsch G., Kiowski W., Yan X.W., Hunziker P., Christen S., Strobel W., Kim J.H., Rickenbacher P., Bertel O. Short term oral endothelin-receptor antagonist therapy in conventionally treated patients with symptomatic severe chronic heart failure. *Circulation* 1998; 98: 2262-2268. ISSN-Nr. 0009-7322
10. Hunziker P. , Buser P., Pfisterer M., Burkart F., Osswald S., Predictors of loss of atrioventricular synchrony in single lead VDD pacing. *Heart*; 1998; p. 390-392, ISSN Nr. 1355-6037
11. Hunziker P.R., Smith S., Scherrer-Crosbie M., Liel-Cohen N., Levine R.A., Nesbitt R., Benton S.A., Picard M.H. Dynamic holographic imaging of the beating human heart. *Circulation* 1999; 99, 597 / *Circulation* 1999; 99, 1e-6e. ISSN-Nr. 0009-7322
12. Hunziker P., Picard M.H., Jander N., Scherrer-Crosbie M., Pfisterer M., Buser P.T. Regional wall motion assessment in stress echocardiography by tissue Doppler bulls-eyes. *J Am Soc Echocardiography* 1999, 12:196-202. ISSN-Nr. 0894-7317
13. Marielle Scherrer-Crosbie, MD, Wolfgang Steudel, MD, Patrick R. Hunziker,

- MD, Noah Liel-Cohen, MD, Roman Ullrich, MD, Warren M. Zapol, MD, Michael H. Picard, MD Three-dimensional echo assessment of left ventricular wall motion abnormalities in mouse myocardial infarction. *J Am Soc Echocardiography* 1999, 12:834-840. ISSN-Nr. 084-7317
14. M. Scherrer-Crosbie, MD, W. Steudel, MD, R. Ullrich, MD, P.R. Hunziker, MD, N. Liel-Cohen, MD, J. Newell BA, J. Zaroff, MD, W.M. Zapol, MD, M.H. Picard MD. Echocardiographic determination of risk area size in a murine model of myocardial ischemia. *American Journal of Physiology* 1999, 277: H986-992. ISSN-Nr. 0002-9513
 15. P. Hunziker. Herzinsuffizienz beim alten Patienten: neue Entwicklungen. *Geriatric Praxis* 1999; 10 Suppl: 7.
 16. Liel-Cohen N., Guerrero J.L., Otsuji Y., Handschumacher MD, Rudski L.G., Hunziker P.R., Tanabe H., Scherrer-Crosbie M., Sullivan S., Levine R.A. Design of a new surgical approach for ventricular remodeling to relieve ischemic mitral regurgitation: Insights from three-dimensional echocardiography. *Circulation* 2000, 101:2756-2763, ISSN-Nr. 0009-7322
 17. Filipovic M., Hunziker P. et al. Transthoracic echocardiography for perioperative hemodynamic monitoring. *Br J Anaesthesia* 2000, 84: 800-3, ISSN-Nr. 0007-0912
 18. Li Zeng, Christian Jansen, Michael Unser, Patrick Hunziker. Extension of wavelet compression algorithms to 3D and 4D image data: Exploitation of data coherence in higher dimensions allows very high compression ratios. *Proceedings SPIE on Mathematical Imaging: Wavelet Applications in Signal and Image Processing*, 2001, vol. 4478, pp. 427-433
 19. Christian Müller, John B. Mc Hodgson, Martin Brutsche, André P. Perruchoud, Stephan Marsch, Patrick Hunziker, Heinz J. Buettner. Impact of intracoronary ultrasound guidance on long-term outcome of percutaneous coronary interventions in diabetics- insights from the randomised SIPS trial. *Swiss med wkly* 2002; 132:279-284, ISSN-Nr. 1424-7860
 20. Hunziker P., Imsand C., Keller D., Hess N., Barbosa V., Nietlispach F., Liel-Cohen N., Weymann AE., Pfisterer M., Buser P. Bedside quantification of atherosclerosis severity for cardiovascular risk stratification: a prospective cohort study. *J. Am Coll Cardiol.* 2002, 39, pp. 702-9, ISSN-Nr. 0735-1097
 21. Keller D., Hunziker P., Buser P. Biopsy of right atrial angiosarcoma guided by transesophageal echocardiography. *J. Am. Soc. Echocardiogr.*, 2002, 15, pp. 475-7, ISSN-Nr. 0894-7317
 22. Hunziker P., Marsch S., Pfisterer M. Diagnosis and risk stratification of acute coronary syndrome in general practice and in the hospital. *Ther. Umsch.*, 2002, 59, pp. 72-8, ISSN-Nr. 0040-5930
 23. Maria J. Ledesma-Carbayo, Jan Kybic, Michael Suehling, Patrick Hunziker, Manuel Desco, Andres Santos and Michael Unser. Cardiac ultrasound motion detection by elastic registration exploiting temporal coherence. *Proc. ISBI 2002. Proceedings of the First 2002 IEEE International Symposium on Biomedical Imaging: Macro to Nano (ISBI'02)*, Washington DC, USA, July 7-10, 2002, vol.

- II, pp. 585-588.
24. Li Zeng, Christian P. Jansen, Stephan Marsch, Michael Unser, Patrick R. Hunziker. Four-Dimensional Wavelet Compression of Arbitrarily-Sized Echocardiographic Data. *IEEE Transactions in Medical Imaging* 2002, 21: Special issue on three-dimensional cardiovascular image analysis, vol. 21, no. 9, pp. 1179-1187, ISSN-Nr. 0278-0062
 25. Müller C., Mc Hodgson JB., Brutsche M., Perruchoud AP., Marsch S., Hunziker P., Büttner HJ. Impact of intracoronary ultrasound guidance on long-term outcome of percutaneous coronary interventions in diabetics- insight from the randomized SIPS trial. *Swiss Med. Wkly.*, 2002, 132, pp. 279-84, ISSN-Nr. 1424-7860
 26. Michael Suehling, Muthuvel Arigovindan, Patrick Hunziker, and Michael Unser: Motion analysis of echocardiograms using a local-affine, spatio-temporal model. *Proceedings of the First 2002 IEEE on Biomedical Imaging: Macro to Nano, (ISBI'02)*, Washington DC, USA, July 7-10, 2002, Paper 1174, vol. II, pp. 573-576
 27. M. Arigovindan, M. Sühling, P. Hunziker, M. Unser. Multigrid Image Reconstruction from Arbitrarily Spaced Samples. *Proceedings of the 2002 IEEE International Conference on Image Processing (ICIP'02)*, Rochester NY, USA, September 22-25, 2002, pp. III.381-III.384.
 28. M. Sühling, M. Arigovindan, P. Hunziker, M. Unser. Multiresolution Moment Filters: Theory and Applications. *Proceedings IEEE on Image Processing (ICIP'02)*, Rochester NY, USA, September 22-25, 2002, pp. I.393-I.396..
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 31. M. Arigovindan, M. Sühling, P. Hunziker, M. Unser. Multigrid Image Reconstruction from Arbitrarily Spaced Samples. *Proceedings of the 2002 IEEE International Conference on Image Processing (ICIP'02)*, Rochester NY, USA, September 22-25, 2002, pp. III.381-III.384.
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 34. M. Sühling, M. Arigovindan, P. Hunziker, M. Unser, "Motion Analysis of

- Echocardiograms Using a Local-Affine, Spatio-Temporal Model,"
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 36. M. Wolf, D. Juncker, B. Michel, P. Hunziker, E. Delamarche. Simultaneous detection of C-reactive protein and other cardiac markers in human plasma using micromosaic immunoassays and self-regulating microfluidic networks. Accepted 13. November 2003. Biosens Bioelectron, published online December 2003, ISSN-Nr. 09565663
 37. M. Sühling, M. Arigovindan, C. Jansen, P. Hunziker, and M. Unser. Myocardial Motion Analysis and Visualization from Echocardiograms. Proceedings of the SPIE International Symposium on Medical Imaging: Image Processing (MI'03), San Diego CA, USA, February 17-20, 2003, vol. 5032, Part I, pp. 306-313. (Conference Paper)
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 40. Arranto C.A., Müller C., Hunziker P., Marsch S., Eriksson U. Adverse cardiac events in ICU patients with presumptive antidepressant overdose. Swiss Med. Wkly., 2003, 133, pp. 479-83, ISSN-Nr. 1424-7860
 41. Müller C., Roskamm H., Neumann F.J., Hunziker P., Marsch S., Perruchoud A.P.P., Büttner H.J. A randomized comparison of clopidogrel and aspirin versus ticlopidine and aspirin after the placement of coronary artery stents. J. Am. Coll. Card., 2003, 41, pp. 969-73, ISSN-Nr. 0735-1097
 42. M. Sühling, M. Arigovindan, C. Jansen, P. Hunziker, and M. Unser. Myocardial Motion Analysis and Visualization from Echocardiograms. Proceedings of the SPIE International Symposium on Medical Imaging: Image Processing (MI'03), San Diego CA, USA, February 17-20, 2003, vol. 5032, Part I, pp. 306-313.
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 45. M. Sühling, M. Arigovindan, C. Jansen, P. Hunziker, M. Unser, "Bimodal Myocardial Motion Analysis from B-Mode and Tissue Doppler Ultrasound," Proceedings of the Second 2004 IEEE International Symposium on Biomedical

- Imaging: From Nano to Macro (ISBI'04), Arlington VA, USA, April 15-18, 2004, pp. 308-311.
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