



Brian Rutt

Professor of Radiology (Radiological Sciences Lab), Emeritus

CONTACT INFORMATION

- **Alternate Contact**

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Bio

ACADEMIC APPOINTMENTS

- Emeritus (Active) Professor, Radiology
- Member, Bio-X
- Member, Wu Tsai Human Performance Alliance
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Wu Tsai Neurosciences Institute

HONORS AND AWARDS

- Fellow, Canadian College of Physicists in Medicine (1989)
- Fellow, International Society for Magnetic Resonance in Medicine (2008)
- Fellow, American Institute for Medical and Biological Engineering (2009)

PROFESSIONAL EDUCATION

- PDF, Univ. of Calif. at San Francisco , Radiology (1986)
- PhD, University of Toronto , Medical Biophysics (1982)
- MSc, Stanford University , Electrical Engineering (1977)
- BAsC, University of Toronto , Engineering Science (1976)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

I am interested in the technology and applications of Magnetic Resonance Imaging (MRI).

I have ongoing research projects involving the basic technology of MRI (e.g. insertable gradient coils and RF components), biophysical measurements using MR (e.g., combined T1 and T2 mapping using efficient imaging sequences), basic science applications of MR (e.g., in-vivo detection rare cell

populations using MRI and the use of MR to longitudinally monitor tumor growth deep within tissue starting from a single cell), and clinical applications, especially in cardiovascular disease.

I am presently interested in developing and using in-vivo ultra-high field (e.g. 7 Tesla) Magnetic Resonance techniques to study important human diseases. The increased sensitivity and enhanced contrast mechanisms at these high magnetic field strengths should provide insight to unsolved problems, especially in neuroscience and cancer.

CLINICAL TRIALS

- High-Field MRI Iron-Based Contrast-Enhanced Characterization of Multiple Sclerosis and Demyelinating Diseases, Not Recruiting

Publications

PUBLICATIONS

- **THALAMIC NUCLEI VOLUMETRY AND SENSORIMOTOR FUNCTION IN ADULTS ON THE AUTISM SPECTRUM**

Fung, L., Rutt, B., Choi, E.
SPRINGER NATURE.2024: 365

- **Thalamic deep brain stimulation in traumatic brain injury: a phase 1, randomized feasibility study.** *Nature medicine*

Schiff, N. D., Giacino, J. T., Butson, C. R., Choi, E. Y., Baker, J. L., O'Sullivan, K. P., Janson, A. P., Bergin, M., Bronte-Stewart, H. M., Chua, J., DeGeorge, L., Dikmen, S., Fogarty, et al
2023

- **Stimulation of the thalamus for arousal restoral in temporal lobe epilepsy (START) clinical trial**

Blumenfeld, H., Yadav, T., Zhang, Z., Benjamin, C., DaCosta, K., Christison-Lagay, K., Damisah, E., Derry, A., Gummadavelli, A., Hirsch, L., Oriol, M., Litvinov, B., Spencer, et al
WILEY.2023: 52

- **Thalamic nuclei atrophy at high and heterogenous rates during cognitively unimpaired human aging.** *NeuroImage*

Choi, E. Y., Tian, L., Su, J. H., Radovan, M. T., Tourdias, T., Tran, T. T., Trelle, A. N., Mormino, E., Wagner, A. D., Rutt, B. K.
2022: 119584

- **Differential vulnerability of thalamic nuclei in multiple sclerosis.** *Multiple sclerosis (Houndmills, Basingstoke, England)*

Blyau, S., Koubiyr, I., Saranathan, M., Coupé, P., Deloire, M., Charré-Morin, J., Saubusse, A., Zhang, B., Rutt, B., Dousset, V., Brochet, B., Ruet, A., Tourdias, et al
2022: 1352458522114247

- **Comparison between 7 Tesla and 3 Tesla MRI for characterizing orbital lesions.** *Diagnostic and interventional imaging*

Lecler, A., Duron, L., Charlson, E., Kolseth, C., Kossler, A. L., Wintermark, M., Moulin, K., Rutt, B.
2022

- **In vivo high-resolution structural MRI-based atlas of human thalamic nuclei.** *Scientific data*

Saranathan, M., Iglehart, C., Monti, M., Tourdias, T., Rutt, B.
2021; 8 (1): 275

- **Electric field calculation and peripheral nerve stimulation prediction for head and body gradient coils.** *Magnetic resonance in medicine*

Roemer, P. B., Wade, T., Alejski, A., McKenzie, C. A., Rutt, B. K.
2021

- **Minimum electric-field gradient coil design: Theoretical limits and practical guidelines.** *Magnetic resonance in medicine*

Roemer, P. B., Rutt, B. K.
2021

- **Effect of radiofrequency shield diameter on signal-to-noise ratio at ultra-high field MRI.** *Magnetic resonance in medicine*

Zhang, B., Adriany, G., Delabarre, L., Radder, J., Lagore, R., Rutt, B., Yang, Q. X., Ugurbil, K., Lattanzi, R.
2021

- **Association of CSF Biomarkers with Hippocampal-dependent Memory in Preclinical Alzheimer Disease.** *Neurology*
Trelle, A. N., Carr, V. A., Wilson, E. N., Swarovski, M. S., Hunt, M. P., Toueg, T. N., Tran, T. T., Channappa, D. n., Corso, N. K., Thieu, M. K., Jayakumar, M. n., Nadiadwala, A. n., Guo, et al
2021
- **Correlative Microscopy to Localize and Characterize Iron Deposition in Alzheimer's Disease.** *Journal of Alzheimer's disease reports*
Madsen, S. J., DiGiacomo, P. S., Zeng, Y., Goubran, M., Chen, Y., Rutt, B. K., Born, D., Vogel, H., Sinclair, R., Zeineh, M. M.
2020; 4 (1): 525–36
- **White-matter-nulled MPRAGE at 7T reveals thalamic lesions and atrophy of specific thalamic nuclei in multiple sclerosis** *MULTIPLE SCLEROSIS JOURNAL*
Planche, V., Su, J. H., Mournet, S., Saranathan, M., Dousset, V., Han, M., Rutt, B. K., Tourdias, T.
2020; 26 (8): 987–92
- **Hippocampal and cortical mechanisms at retrieval explain variability in episodic remembering in older adults.** *eLife*
Trelle, A. N., Carr, V. A., Guerin, S. A., Thieu, M. K., Jayakumar, M. n., Guo, W. n., Nadiadwala, A. n., Corso, N. K., Hunt, M. P., Litovsky, C. P., Tanner, N. J., Deutsch, G. K., Bernstein, et al
2020; 9
- **Substantia Nigra Volume Dissociates Bradykinesia and Rigidity from Tremor in Parkinson's Disease: A 7 Tesla Imaging Study.** *Journal of Parkinson's disease*
Poston, K. L., Ua Cruadhlaich, M. A., Santoso, L. F., Bernstein, J. D., Liu, T., Wang, Y., Rutt, B., Kerchner, G. A., Zeineh, M. M.
2020; 10 (2): 591–604
- **Improved Vim targeting for focused ultrasound ablation treatment of essential tremor: A probabilistic and patient-specific approach.** *Human brain mapping*
Su, J. H., Choi, E. Y., Tourdias, T. n., Saranathan, M. n., Halpern, C. H., Henderson, J. M., Pauly, K. B., Ghanouni, P. n., Rutt, B. K.
2020
- **A within-coil optical prospective motion-correction system for brain imaging at 7T.** *Magnetic resonance in medicine*
DiGiacomo, P. n., Maclaren, J. n., Aksoy, M. n., Tong, E. n., Carlson, M. n., Lanzman, B. n., Hashmi, S. n., Watkins, R. n., Rosenberg, J. n., Burns, B. n., Skloss, T. W., Rettmann, D. n., Rutt, et al
2020
- **Automated thalamic nuclei segmentation using multi-planar cascaded convolutional neural networks.** *Magnetic resonance imaging*
Majdi, M. S., Keerthivasan, M. B., Rutt, B. K., Zahr, N. M., Rodriguez, J. J., Saranathan, M. n.
2020
- **SMS MUSSELS: A navigator-free reconstruction for simultaneous multi-slice-accelerated multi-shot diffusion weighted imaging.** *Magnetic resonance in medicine*
Mani, M., Jacob, M., McKinnon, G., Yang, B., Rutt, B., Kerr, A., Magnotta, V.
2019
- **Thalamus Optimized Multi Atlas Segmentation (THOMAS): fast, fully automated segmentation of thalamic nuclei from structural MRI** *NEUROIMAGE*
Su, J. H., Thomas, F. T., Kasoff, W. S., Tourdias, T., Choi, E., Rutt, B. K., Saranathan, M.
2019; 194: 272–82
- **IMPULSE: A scalable algorithm for design of minimum specific absorption rate parallel transmit RF pulses** *MAGNETIC RESONANCE IN MEDICINE*
Pendse, M., Stara, R., Khalighi, M., Rutt, B.
2019; 81 (4): 2808–22
- **Fast, fully automated segmentation of thalamic nuclei from structural MRI.** *NeuroImage*
Su, J. H., Thomas, F. T., Kasoff, W. S., Tourdias, T., Choi, E. Y., Rutt, B. K., Saranathan, M.
2019
- **White-matter-nulled MPRAGE at 7T reveals thalamic lesions and atrophy of specific thalamic nuclei in multiple sclerosis.** *Multiple sclerosis (Houndmills, Basingstoke, England)*
Planche, V., Su, J. H., Mournet, S., Saranathan, M., Dousset, V., Han, M., Rutt, B. K., Tourdias, T.
2019: 1352458519828297

- **Close Association of Myeloperoxidase-Producing Activated Microglia with Amyloid Plaques in Hypercholesterolemic Rabbits.** *Journal of Alzheimer's disease : JAD*
Chen, Y., Wang, T., Rogers, K. A., Rutt, B. K., Ronald, J. A.
2019
- **Hippocampal CA1 subfield predicts episodic memory impairment in Parkinson's disease.** *NeuroImage. Clinical*
La, C. n., Linortner, P. n., Bernstein, J. D., Ua Cruadhlaioich, M. A., Fenesy, M. n., Deutsch, G. K., Rutt, B. K., Tian, L. n., Wagner, A. D., Zeineh, M. n., Kerchner, G. A., Poston, K. L.
2019; 23: 101824
- **Hippocampal CA1 subfield predicts episodic memory impairment in Parkinson's disease** *NEUROIMAGE-CLINICAL*
La, C., Linortner, P., Bernstein, J. D., Cruadhlaioich, M., Fenesy, M., Deutsch, G. K., Rutt, B. K., Tian, L., Wagner, A. D., Zeineh, M., Kerchner, G. A., Poston, K. L.
2019; 23
- **Close Association of Myeloperoxidase-Producing Activated Microglia with Amyloid Plaques in Hypercholesterolemic Rabbits** *JOURNAL OF ALZHEIMERS DISEASE*
Chen, Y., Wang, T., Rogers, K. A., Rutt, B. K., Ronald, J. A.
2019; 67 (4): 1221–34
- **MR susceptibility contrast imaging using a 2D simultaneous multi-slice gradient-echo sequence at 7T.** *PloS one*
Bian, W., Kerr, A. B., Tranvinh, E., Parivash, S., Zahneisen, B., Han, M. H., Lock, C. B., Goubran, M., Zhu, K., Rutt, B. K., Zeineh, M. M.
2019; 14 (7): e0219705
- **IMPULSE: A scalable algorithm for design of minimum specific absorption rate parallel transmit RF pulses.** *Magnetic resonance in medicine*
Pendse, M., Stara, R., Mehdi Khalighi, M., Rutt, B.
2018
- **Characterization of Magneto-Endosymbionts as MRI Cell Labeling and Tracking Agents** *MOLECULAR IMAGING AND BIOLOGY*
Brewer, K. D., Spittler, R., Lee, K. R., Chan, A. C., Barrozo, J. C., Wakeel, A., Foote, C. S., Machtaler, S., Rioux, J., Willmann, J. K., Chakraborty, P., Rice, B. W., Contag, et al
2018; 20 (1): 65–73
- **Comparision of new element designs for combined RF-Shim arrays at 7 T.** *Concepts in magnetic resonance. Part B, Magnetic resonance engineering*
Winkler, S. A., Warr, P. A., Stockmann, J. P., Mareyam, A., Keil, B., Watkins, R. D., Wald, L. L., Rutt, B. K.
2018; 48B (1)
- **Cell Labeling with Magneto-Endosymbionts and the Dissection of the Subcellular Location, Fate, and Host Cell Interactions** *MOLECULAR IMAGING AND BIOLOGY*
Lee, K. R., Wakeel, A., Chakraborty, P., Foote, C. S., Kajiura, L., Barrozo, J. C., Chan, A. C., Bazarov, A. V., Spittler, R., Kutny, P. M., Denegre, J. M., Taft, R. A., Seemann, et al
2018; 20 (1): 55–64
- **In Vivo MRI of Amyloid Plaques in a Cholesterol-Fed Rabbit Model of Alzheimer's Disease** *JOURNAL OF ALZHEIMERS DISEASE*
Chen, Y., Lim, P., Rogers, K. A., Rutt, B. K., Ronald, J. A.
2018; 64 (3): 911–23
- **Closing the loop on impulsivity via nucleus accumbens delta-band activity in mice and man.** *Proceedings of the National Academy of Sciences of the United States of America*
Wu, H. n., Miller, K. J., Blumenfeld, Z. n., Williams, N. R., Ravikumar, V. K., Lee, K. E., Kakusa, B. n., Sacchet, M. D., Wintermark, M. n., Christoffel, D. J., Rutt, B. K., Bronte-Stewart, H. n., Knutson, et al
2018; 115 (1): 192–97
- **Individual differences in associative memory among older adults explained by hippocampal subfield structure and function** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Carr, V. A., Bernstein, J. D., Favila, S. E., Rutt, B. K., Kerchner, G. A., Wagner, A. D.
2017; 114 (45): 12075–80
- **PKM2 activation sensitizes cancer cells to growth inhibition by 2-deoxy-D-glucose** *ONCOTARGET*
Tee, S., Park, J., Hurd, R. E., Brimacombe, K. R., Boxer, M. B., Massoud, T. F., Rutt, B. K., Spielman, D. M.

2017; 8 (53): 90959–68

- **PKM2 activation sensitizes cancer cells to growth inhibition by 2-deoxy-D-glucose.** *Oncotarget*
Tee, S. S., Park, J. M., Hurd, R. E., Brimacombe, K. R., Boxer, M. B., Massoud, T. F., Rutt, B. K., Spielman, D. M.
2017; 8 (53): 90959-90968
- **Thalamic alterations remote to infarct appear as focal iron accumulation and impact clinical outcome.** *Brain*
Kuchcinski, G., Munsch, F., Lopes, R., Bigourdan, A., Su, J., Sagnier, S., Renou, P., Pruvo, J., Rutt, B. K., Dousset, V., Sibon, I., Tourdias, T.
2017
- **A Degenerate Birdcage with Integrated Tx/Rx Switches and Butler Matrix for the Human Limbs at 7 T** *APPLIED MAGNETIC RESONANCE*
Stara, R., Tiberi, G., Morsani, F., Symms, M., Fantacci, M. E., Marletta, M., Zampa, V., Pendse, M., Retico, A., Rutt, B. K., Tosetti, M.
2017; 48 (3): 307-326
- **Feasibility of 7T MRI for Imaging Fascicular Structures of Peripheral Nerves.** *Muscle & nerve*
Yoon, D. n., Biswal, S. n., Rutt, B. n., Lutz, A. n., Hargreaves, B. n.
2017
- **Gradient and shim technologies for ultra high field MRI.** *NeuroImage*
Winkler, S. A., Schmitt, F., Landes, H., DeBever, J., Wade, T., Alejski, A., Rutt, B. K.
2016
- **On the accurate analysis of vibroacoustics in head insert gradient coils.** *Magnetic resonance in medicine*
Winkler, S. A., Alejski, A., Wade, T., McKenzie, C. A., Rutt, B. K.
2016
- **Direct SAR mapping by thermoacoustic imaging: A feasibility study.** *Magnetic resonance in medicine*
Winkler, S. A., Picot, P. A., Thornton, M. M., Rutt, B. K.
2016
- **In Vivo 7T MR Quantitative Susceptibility Mapping Reveals Opposite Susceptibility Contrast between Cortical and White Matter Lesions in Multiple Sclerosis** *AMERICAN JOURNAL OF NEURORADIOLOGY*
Bian, W., Tranvinh, E., Tourdias, T., Han, M., Liu, T., Wang, Y., Rutt, B., Zeineh, M. M.
2016; 37 (10): 1808-1815
- **MRI and histopathologic study of a novel cholesterol-fed rabbit model of xanthogranuloma.** *Journal of magnetic resonance imaging*
Chen, Y., Hamilton, A. M., Parkins, K. M., Wang, J., Rogers, K. A., Zeineh, M. M., Rutt, B. K., Ronald, J. A.
2016; 44 (3): 673-682
- **Biexponential longitudinal relaxation in white matter: Characterization and impact on T1 mapping with IR-FSE and MP2RAGE.** *Magnetic resonance in medicine*
Rioux, J. A., Levesque, I. R., Rutt, B. K.
2016; 75 (6): 2265-2277
- **On the Accurate Analysis of Vibroacoustics in Head Insert Gradient Coils** *Magnetic Resonance in Medicine*
Winkler, S. A., Alejski, A., Wade, T., McKenzie, C., Rutt, B. K.
2016
- **Molecular Magnetic Resonance Imaging of Tumor Response to Therapy** *SCIENTIFIC REPORTS*
Shuhendler, A. J., Ye, D., Brewer, K. D., Bazalova-Carter, M., Lee, K., Kempen, P., Wittrup, K. D., Graves, E. E., Rutt, B., Rao, J.
2015; 5
- **Activated iron-containing microglia in the human hippocampus identified by magnetic resonance imaging in Alzheimer disease.** *Neurobiology of aging*
Zeineh, M. M., Chen, Y., Kitzler, H. H., Hammond, R., Vogel, H., Rutt, B. K.
2015; 36 (9): 2483-2500
- **Nanoparticles coated with the tumor-penetrating peptide iRGD reduce experimental breast cancer metastasis in the brain** *JOURNAL OF MOLECULAR MEDICINE-JMM*
Hamilton, A. M., Aidoudi-Ahmed, S., Sharma, S., Kotamraju, V. R., Foster, P. J., Sugahara, K. N., Ruoslahti, E., Rutt, B. K.
2015; 93 (9): 991-1001

- **Ultra-high resolution in-vivo 7.0 T structural imaging of the human hippocampus reveals the endfolial pathway** *NEUROIMAGE*
Parekh, M. B., Rutt, B. K., Purcell, R., Chen, Y., Zeineh, M. M.
2015; 112: 1-6
- **Optimization of White-Matter-Nullled Magnetization Prepared Rapid Gradient Echo (MP-RAGE) Imaging** *MAGNETIC RESONANCE IN MEDICINE*
Saranathan, M., Tourdias, T., Bayram, E., Ghanouni, P., Rutt, B. K.
2015; 73 (5): 1786-1794
- **Practical Methods for Improving B-1(+) Homogeneity in 3 Tesla Breast Imaging** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Winkler, S. A., Rutt, B. K.
2015; 41 (4): 992-999
- **Characterization of magnetotactic bacteria as MRI cell labeling and tracking agents**
Brewer, K. D., Chan, A., Rioux, J. A., Rafat, M., Machtaler, S., Chakraborty, P., Barozzo, J., Wakeel, A., Willmann, J. K., Graves, E., Rice, B., Bell, C., Rutt, et al
SOC NUCLEAR MEDICINE INC.2015: 2-3
- **Caspase-responsive smart gadolinium-based contrast agent for magnetic resonance imaging of drug-induced apoptosis.** *Chemical science*
Ye, D., Shuhendler, A. J., Pandit, P., Brewer, K. D., Tee, S. S., Cui, L., Tikhomirov, G., Rutt, B., Rao, J.
2014; 4 (10): 3845-3852
- **Redox-triggered self-assembly of gadolinium-based MRI probes for sensing reducing environment.** *Bioconjugate chemistry*
Ye, D., Pandit, P., Kempen, P., Lin, J., Xiong, L., Sinclair, R., Rutt, B., Rao, J.
2014; 25 (8): 1526-1536
- **Redox-Triggered Self-Assembly of Gadolinium-Based MRI Probes for Sensing Reducing Environment** *BIOCONJUGATE CHEMISTRY*
Ye, D., Pandit, P., Kempen, P., Lin, J., Xiong, L., Sinclair, R., Rutt, B., Rao, J.
2014; 25 (8): 1526-1536
- **Ultrahigh-resolution imaging of the human brain with phase-cycled balanced steady-state free precession at 7 T.** *Investigative radiology*
Zeineh, M. M., Parekh, M. B., Zaharchuk, G., Su, J. H., Rosenberg, J., Fischbein, N. J., Rutt, B. K.
2014; 49 (5): 278-289
- **Optimization of magnetization-prepared 3-dimensional fluid attenuated inversion recovery imaging for lesion detection at 7 T.** *Investigative radiology*
Saranathan, M., Tourdias, T., Kerr, A. B., Bernstein, J. D., Kerchner, G. A., Han, M. H., Rutt, B. K.
2014; 49 (5): 290-298
- **APOE {varepsilon}4 worsens hippocampal CA1 apical neuropil atrophy and episodic memory.** *Neurology*
Kerchner, G. A., Berdnik, D., Shen, J. C., Bernstein, J. D., Fenesy, M. C., Deutsch, G. K., Wyss-Coray, T., Rutt, B. K.
2014; 82 (8): 691-697
- **Flip Angle Mapping with the Accelerated 3D Look-Locker Sequence** *MAGNETIC RESONANCE IN MEDICINE*
Wade, T., McKenzie, C. A., Rutt, B. K.
2014; 71 (2): 591-598
- **Caspase-responsive smart gadolinium-based contrast agent for magnetic resonance imaging of drug-induced apoptosis** *CHEMICAL SCIENCE*
Ye, D., Shuhendler, A. J., Pandit, P., Brewer, K. D., Tee, S. S., Cui, L., Tikhomirov, G., Rutt, B., Rao, J.
2014; 5 (10): 3845-3852
- **Visualization of intra-thalamic nuclei with optimized white-matter-nullled MPRAGE at 7 T** *NEUROIMAGE*
Tourdias, T., Saranathan, M., Levesque, I. R., Su, J., Rutt, B. K.
2014; 84: 534-545
- **Efficient bloch-siegert B1 (+) mapping using spiral and echo-planar readouts.** *Magnetic resonance in medicine*
Saranathan, M., Khalighi, M. M., Glover, G. H., Pandit, P., Rutt, B. K.
2013; 70 (6): 1669-1673

- **Shared vulnerability of two synaptically-connected medial temporal lobe areas to age and cognitive decline: a seven tesla magnetic resonance imaging study.** *journal of neuroscience*
Kerchner, G. A., Bernstein, J. D., Fenesy, M. C., Deutsch, G. K., Saranathan, M., Zeineh, M. M., Rutt, B. K.
2013; 33 (42): 16666-16672
- **Adiabatic RF pulse design for Bloch-Siegert B-1(+) mapping** *MAGNETIC RESONANCE IN MEDICINE*
Khalighi, M. M., Rutt, B. K., Kerr, A. B.
2013; 70 (3): 829-835
- **Flip angle mapping with the accelerated 3D look-locker sequence.** *Magnetic resonance in medicine : official journal of the Society of Magnetic Resonance in Medicine / Society of Magnetic Resonance in Medicine*
Wade, T., McKenzie, C. A., Rutt, B. K.
2013
- **Atherosclerosis Imaging and the Canadian Atherosclerosis Imaging Network** *CANADIAN JOURNAL OF CARDIOLOGY*
Tardif, J., Spence, J. D., Heinonen, T. M., Moody, A., Pressacco, J., Frayne, R., L'Allier, P., Chow, B. J., Friedrich, M., Black, S. E., Fenster, A., Rutt, B., Beanlands, et al
2013; 29 (3): 297-303
- **Does iron inhibit calcification during atherosclerosis?** *FREE RADICAL BIOLOGY AND MEDICINE*
Rajendran, R., Ren Minqin, M. Q., Ronald, J. A., Rutt, B. K., Halliwell, B., Watt, F.
2012; 53 (9): 1675-1679
- **Small-tip-angle spokes pulse design using interleaved greedy and local optimization methods** *MAGNETIC RESONANCE IN MEDICINE*
Grissom, W. A., Khalighi, M., Sacolick, L. I., Rutt, B. K., Vogel, M. W.
2012; 68 (5): 1553-1562
- **Hippocampal CA1 apical neuropil atrophy and memory performance in Alzheimer's disease** *NEUROIMAGE*
Kerchner, G. A., Deutsch, G. K., Zeineh, M., Dougherty, R. F., Saranathan, M., Rutt, B. K.
2012; 63 (1): 194-202
- **Adiabatic RF pulse design for Bloch-Siegert B 1+ mapping.** *Magnetic resonance in medicine : official journal of the Society of Magnetic Resonance in Medicine / Society of Magnetic Resonance in Medicine*
Khalighi, M. M., Rutt, B. K., Kerr, A. B.
2012
- **RF pulse optimization for Bloch-Siegert B-1(+) mapping** *MAGNETIC RESONANCE IN MEDICINE*
Khalighi, M. M., Rutt, B. K., Kerr, A. B.
2012; 68 (3): 857-862
- **Hippocampal CA1 Apical Neuropil Atrophy and Memory Performance in Alzheimer Disease**
Kerchner, G., Deutsch, G., Zeineh, M., Dougherty, R., Rutt, B.
LIPPINCOTT WILLIAMS & WILKINS.2012
- **Deficient MWF mapping in multiple sclerosis using 3D whole-brain multi-component relaxation MRI** *NEUROIMAGE*
Kitzler, H. H., Su, J., Zeineh, M., Harper-Little, C., Leung, A., Kremenutzky, M., Deoni, S. C., Rutt, B. K.
2012; 59 (3): 2670-2677
- **Hippocampal CA1 Apical Neuropil Atrophy and Memory Performance in Alzheimer Disease**
Kerchner, G. A., Deutsch, G. K., Zeineh, M., Dougherty, R. F., Rutt, B. K.
WILEY-BLACKWELL.2012: S45
- **Unshielded Gradient Coils Design For Magnetic Resonance Imaging**
Hidalgo, S. S., Gadzinski, C., Rutt, B., Zamudio, F. E., Brandan, M. E., GamboadeBuen, HerreraCorral, G., MedinaVelazquez, L. A.
AMER INST PHYSICS.2012: 54-57
- **Comparing the MRI Appearance of the Lymph Nodes and Spleen in Wild-Type and Immuno-Deficient Mouse Strains** *PLOS ONE*
Economopoulos, V., Noad, J. C., Krishnamoorthy, S., Rutt, B. K., Foster, P. J.
2011; 6 (11)

- **Extended Graphical Model for Analysis of Dynamic Contrast-Enhanced MRI** *MAGNETIC RESONANCE IN MEDICINE*
Chen, H., Li, F., Zhao, X., Yuan, C., Rutt, B., Kerwin, W. S.
2011; 66 (3): 868-878
- **The Use of Cellular Magnetic Resonance Imaging to Track the Fate of Iron-Labeled Multipotent Stromal Cells after Direct Transplantation in a Mouse Model of Spinal Cord Injury** *MOLECULAR IMAGING AND BIOLOGY*
Gonzalez-Lara, L. E., Xu, X., Hofstetrova, K., Pniak, A., Chen, Y., McFadden, C. D., Martinez-Santesteban, F. M., Rutt, B. K., Brown, A., Foster, P. J.
2011; 13 (4): 702-711
- **In Vivo Single Scan Detection of Both Iron-Labeled Cells and Breast Cancer Metastases in the Mouse Brain Using Balanced Steady-State Free Precession Imaging at 1.5 T** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Ribot, E. J., Martinez-Santesteban, F. M., Simedrea, C., Steeg, P. S., Chambers, A. F., Rutt, B. K., Foster, P. J.
2011; 34 (1): 231-238
- **Dynamic and High-Resolution Metabolic Imaging of Hyperpolarized [1-C-13]-Pyruvate in the Rat Brain Using a High-Performance Gradient Insert** *MAGNETIC RESONANCE IN MEDICINE*
Mayer, D., Yen, Y., Takahashi, A., Josan, S., Tropp, J., Rutt, B. K., Hurd, R. E., Spielman, D. M., Pfefferbaum, A.
2011; 65 (5): 1228-1233
- **Controlled Self-Assembling of Gadolinium Nanoparticles as Smart Molecular Magnetic Resonance Imaging Contrast Agents** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*
Liang, G., Ronald, J., Chen, Y., Ye, D., Pandit, P., Ma, M. L., Rutt, B., Rao, J.
2011; 50 (28): 6283-6286
- **Magnetic Resonance Tracking of Stem Cells with Iron Oxide Particles** *INTRACELLULAR DELIVERY: FUNDAMENTALS AND APPLICATIONS*
Lee, E. M., Rutt, B. K., Fisk, N. M., Wang, S., Chan, J., Prokop, A.
2011; 5: 459-85
- **Biodistribution of Neural Stem Cells After Intravascular Therapy for Hypoxic-Ischemia** *STROKE*
Pendharkar, A. V., Chua, J. Y., Andres, R. H., Wang, N., Gaeta, X., Wang, H., De, A., Choi, R., Chen, S., Rutt, B. K., Gambhir, S. S., Guzman, R.
2010; 41 (9): 2064-2070
- **Imaging Iron-Loaded Mouse Glioma Tumors With bSSFP at 3 T** *MAGNETIC RESONANCE IN MEDICINE*
Bernas, L. M., Foster, P. J., Rutt, B. K.
2010; 64 (1): 23-31
- **Gadolinium-based "star-polymers" as targeted MRI probes for detection and imaging of cancer and immune cells**
Haynes, R. D., Appel, E. A., Niedringhaus, T. P., Nguyen, T. T., Lee, V. Y., McNeil, M., Hedrick, J. L., Miller, R. D., Rutt, B. K., Blau, H. M., Sly, J., Barron, A. E.
AMER CHEMICAL SOC.2010
- **Early Identification of Aortic Valve Sclerosis Using Iron Oxide Enhanced MRI** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Hamilton, A. M., Rogers, K. A., Belisle, A. J., Ronald, J. A., Rutt, B. K., Weissleder, R., Boughner, D. R.
2010; 31 (1): 110-116
- **Human Neural Stem Cells Repair Damaged Stroke Tissue. A Magnetic Resonance Imaging Study**
Daadi, M. M., Klausner, J., Bhatnagar, R., Sun, G., Rutt, B., Steinberg, G. K.
COGNIZANT COMMUNICATION CORP.2010: 336
- **Three-Dimensional Imaging and Quantification of Both Solitary Cells and Metastases in Whole Mouse Liver by Magnetic Resonance Imaging** *CANCER RESEARCH*
Townson, J. L., Ramadan, S. S., Simedrea, C., Rutt, B. K., MacDonald, I. C., Foster, P. J., Chambers, A. F.
2009; 69 (21): 8326-8331
- **Atherosclerotic Plaque Progression in Carotid Arteries: Monitoring with High-Spatial-Resolution MR Imaging-Multicenter Trial** *RADIOLOGY*
Boussel, L., Arora, S., Rapp, J., Rutt, B., Huston, J., Parker, D., Yuan, C., Bassiouny, H., Saloner, D.
2009; 252 (3): 789-796
- **Enzyme-Sensitive Magnetic Resonance Imaging Targeting Myeloperoxidase Identifies Active Inflammation in Experimental Rabbit Atherosclerotic Plaques** *CIRCULATION*

- Ronald, J. A., Chen, J. W., Chen, Y., Hamilton, A. M., Rodriguez, E., Reynolds, F., Hegele, R. A., Rogers, K. A., Querol, M., Bogdanov, A., Weissleder, R., Rutt, B. K.
2009; 120 (7): 592-U92
- **Nuclear Microscopy: A Novel Technique for Quantitative Imaging of Gadolinium Distribution within Tissue Sections** *Annual Meeting on Microscopy and Microanalysis*
Rajendran, R., Ronald, J. A., Ye, T., Ren Minqin, M. Q., Chen, J. W., Weissleder, R., Rutt, B. K., Halliwell, B., Watt, F.
CAMBRIDGE UNIV PRESS.2009: 338–44
 - **Predicting abdominal adipose tissue among women with familial partial lipodystrophy** *METABOLISM-CLINICAL AND EXPERIMENTAL*
Joy, T., Kennedy, B. A., Al-Attar, S., Rutt, B. K., Hegele, R. A.
2009; 58 (6): 828-834
 - **Clinical field-strength MRI of amyloid plaques induced by low-level cholesterol feeding in rabbits** *BRAIN*
Ronald, J. A., Chen, Y., Bernas, L., Kitzler, H. H., Rogers, K. A., Hegele, R. A., Rutt, B. K.
2009; 132: 1346-1354
 - **Comparison of Gadofluorine-M and Gd-DTPA for Noninvasive Staging of Atherosclerotic Plaque Stability Using MRI** *CIRCULATION-CARDIOVASCULAR IMAGING*
Ronald, J. A., Chen, Y., Belisle, A. J., Hamilton, A. M., Rogers, K. A., Hegele, R. A., Misselwitz, B., Rutt, B. K.
2009; 2 (3): 226-234
 - **The In Vivo Diagnosis of Early-Stage Aortic Valve Sclerosis Using Magnetic Resonance Imaging in a Rabbit Model** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Hamilton, A. M., Rogers, K. A., Drangova, M., Khan, Z., Ronald, J. A., Rutt, B. K., MacLean, K. A., Lacefield, J. C., Boughner, D. R.
2009; 29 (4): 825-831
 - **Delta Relaxation Enhanced MR: Improving Activation-Specificity of Molecular Probes through R-1 Dispersion Imaging** *MAGNETIC RESONANCE IN MEDICINE*
Alford, J. K., Rutt, B. K., Scholl, T. J., Handler, W. B., Chronik, B. A.
2009; 61 (4): 796-802
 - **Cell Tracking and Single Cell Imaging by MRI**
Rutt, B., Dossel, O., Schlegel, W. C.
SPRINGER.2009: 218–20
 - **Scan-rescan and intra-observer variability of magnetic resonance imaging of carotid atherosclerosis at 1.5 T and 3.0 T** *PHYSICS IN MEDICINE AND BIOLOGY*
Vidal, A., Bureau, Y., Wade, T., Spence, J. D., Rutt, B. K., Fenster, A., Parraga, G.
2008; 53 (23): 6821-6835
 - **Gleaning Multicomponent T-1 and T-2 Information From Steady-State Imaging Data** *MAGNETIC RESONANCE IN MEDICINE*
Deoni, S. C., Rutt, B. K., Arun, T., Pierpaoli, C., Jones, D. K.
2008; 60 (6): 1372-1387
 - **Enhanced Cell Uptake of Superparamagnetic Iron Oxide Nanoparticles Functionalized with Dendritic Guanidines** *BIOCONJUGATE CHEMISTRY*
Martin, A. L., Bernas, L. M., Rutt, B. K., Foster, P. J., Gillies, E. R.
2008; 19 (12): 2375-2384
 - **Three-frequency RF coil designed for optimized imaging of hyperpolarized, C-13-labeled compounds** *MAGNETIC RESONANCE IN MEDICINE*
Hancu, I., Wood, S. J., Piel, J., Whitt, D. B., Fish, K. M., Rutt, B. K., Tropp, J., Dixon, W. T.
2008; 60 (4): 928-933
 - **Comparison of B-mode ultrasound, 3-dimensional ultrasound, and magnetic resonance imaging measurements of carotid atherosclerosis** *JOURNAL OF ULTRASOUND IN MEDICINE*
Egger, M., Krasinski, A., Rutt, B. K., Fenster, A., Parraga, G.
2008; 27 (9): 1321-1334
 - **Ex-vivo cellular MRI with b-SSFP: quantitative benefits of 3 T over 1.5 T** *MAGNETIC RESONANCE MATERIALS IN PHYSICS BIOLOGY AND MEDICINE*

- Ramadan, S. S., Heyn, C., MacKenzie, L. T., Chambers, A. F., Rutt, B. K., Foster, P. J.
2008; 21 (4): 251-259
- **Investigating exchange and multicomponent relaxation in fully-balanced steady-state free precession imaging** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Deoni, S. C., Rutt, B. K., Jones, D. K.
2008; 27 (6): 1421-1429
 - **MRI of early- and late-stage arterial remodeling in a low-level cholesterol-fed rabbit model of atherosclerosis** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Ronald, J. A., Walcarius, R., Robinson, J. F., Hegele, R. A., Rutt, B. K., Rogers, K. A.
2007; 26 (4): 1010-1019
 - **Obstructive sleep apnea in 2 women with familial partial lipodystrophy due to a heterozygous LMNA R(4)8(2)Q mutation** *CANADIAN MEDICAL ASSOCIATION JOURNAL*
Hegele, R. A., Al-Attar, S. A., Rutt, B. K.
2007; 177 (7): 743-745
 - **Thematic review series: Adipocyte Biology. Lipodystrophies: windows on adipose biology and metabolism.** *Journal of lipid research*
Hegele, R. A., Joy, T. R., Al-Attar, S. A., Rutt, B. K.
2007; 48 (7): 1433-1444
 - **Lipodystrophies: Windows on adipose biology and metabolism** *JOURNAL OF LIPID RESEARCH*
Hegele, R. A., Joy, T. R., Al-Attar, S. A., Rutt, B. K.
2007; 48 (7): 1433-1444
 - **Carotid plaque classification: Defining the certainty with which plaque components can be differentiated** *MAGNETIC RESONANCE IN MEDICINE*
Ronen, R. R., Clarke, S. E., Hammond, R. R., Rutt, B. K.
2007; 57 (5): 874-880
 - **In vivo fiber tracking in the rat brain on a clinical 3T MRI system using a high strength insert gradient coil** *NEUROIMAGE*
Mayer, D., Zahr, N. M., Adalsteinsson, E., Rutt, B., Sullivan, E. V., Pfefferbaum, A.
2007; 35 (3): 1077-1085
 - **Investigating the effect of exchange and multicomponent T-1 relaxation on the short repetition time spoiled steady-state signal and the DESPOT1 T-1 quantification method** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Deoni, S. C., Rutt, B. K., Jones, D. K.
2007; 25 (3): 570-578
 - **Magnetic resonance imaging of in vitro glioma cell invasion** *JOURNAL OF NEUROSURGERY*
Bernas, L. M., Foster, P. J., Rutt, B. K.
2007; 106 (2): 306-313
 - **Quantitative and qualitative differences in subcutaneous adipose tissue stores across lipodystrophy types shown by magnetic resonance imaging.** *BMC medical imaging*
Al-Attar, S. A., Pollex, R. L., Robinson, J. F., Miskie, B. A., Walcarius, R., Little, C. H., Rutt, B. K., Hegele, R. A.
2007; 7: 3-?
 - **Segmentation of thalamic nuclei using a modified k-means clustering algorithm and high-resolution quantitative magnetic resonance imaging at 1.5 T** *NEUROIMAGE*
Deoni, S. C., Rutt, B. K., Parrent, A. G., Peters, T. M.
2007; 34 (1): 117-126
 - **Imaging islets labeled with magnetic nanoparticles at 1.5 Tesla** *DIABETES*
Tai, J. H., Foster, P., Rosales, A., Feng, B., Hasilo, C., Martinez, V., Ramadan, S., Snir, J., Melling, C. W., Dhanvantari, S., Rutt, B., White, D. J.
2006; 55 (11): 2931-2938
 - **Synthetic T-1-weighted brain image generation with incorporated coil intensity correction using DESPOT1** *MAGNETIC RESONANCE IMAGING*
Deoni, S. C., Rutt, B. K., Peters, T. M.

2006; 24 (9): 1241-1248

- **In vivo MRI of cancer cell fate at the single-cell level in a mouse model of breast cancer metastasis to the brain** *MAGNETIC RESONANCE IN MEDICINE*
Heyn, C., Ronald, J. A., Ramadan, S. S., Snir, J. A., Barry, A. M., MacKenzie, L. T., Mikulis, D. J., Palmieri, D., Bronder, J. L., Steeg, P. S., Yoneda, T., MacDonald, I. C., Chambers, et al
2006; 56 (5): 1001-1010
- **Resolution and SNR effects on carotid plaque classification** *MAGNETIC RESONANCE IN MEDICINE*
Ronen, R. R., Clarke, S. E., Hammond, R. R., Rutt, B. K.
2006; 56 (2): 290-295
- **Cellular MRI contrast via coexpression of transferrin receptor and ferritin** *MAGNETIC RESONANCE IN MEDICINE*
Deans, A. E., Wadghiri, Y. Z., Bernas, L. M., Yu, X., Rutt, B. K., Turnbull, D. H.
2006; 56 (1): 51-59
- **In vivo magnetic resonance imaging of single cells in mouse brain with optical validation** *MAGNETIC RESONANCE IN MEDICINE*
Heyn, C., Ronald, J. A., Mackenzie, L. T., MacDonald, I. C., Chambers, A. F., Rutt, B. K., Foster, P. J.
2006; 55 (1): 23-29
- **Validation of automatically classified magnetic resonance images for carotid plaque compositional analysis** *STROKE*
Clarke, S. E., Beletsky, V., Hammond, R. R., Hegele, R. A., Rutt, B. K.
2006; 37 (1): 93-97
- **Semi-automated segmentation and quantification of adipose tissue in calf and thigh by MRI: a preliminary study in patients with monogenic metabolic syndrome.** *BMC medical imaging*
Al-Attar, S. A., Pollex, R. L., Robinson, J. F., Miskie, B. A., Walcarius, R., Rutt, B. K., Hegele, R. A.
2006; 6: 11-?
- **Variation in the carotid bifurcation geometry of young versus older adults - Implications for geometric risk of atherosclerosis** *STROKE*
Thomas, J. B., Antiga, L., Che, S. L., Milner, J. S., Steinman, D. A., Spence, J. D., Rutt, B. K., Steinman, D. A.
2005; 36 (11): 2450-2456
- **Acoustic noise simulation and measurement of a gradient insert in a 4 T MRI** *APPLIED ACOUSTICS*
Yao, G. Z., Mechefske, C. K., Rutt, B. K.
2005; 66 (8): 957-973
- **Vibration analysis and measurement of a gradient coil insert in a 4 T MRI** *JOURNAL OF SOUND AND VIBRATION*
Yao, G. Z., Mechefske, C. K., Rutt, B. K.
2005; 285 (3): 743-758
- **Visualization of thalamic nuclei on high resolution, multi-averaged T-1 and T-2 maps acquired at 1.5 T** *HUMAN BRAIN MAPPING*
Deoni, S. C., Josseau, M. J., Rutt, B. K., Peters, T. M.
2005; 25 (3): 353-359
- **Anthropometric data for magnetic resonance imaging of the carotid bifurcation** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Thomas, J. B., Jong, L., Spence, J. D., Wasserman, B. A., Rutt, B. K., Steinman, D. A.
2005; 21 (6): 845-849
- **Multisite trial of MR flow measurement: Phantom and protocol design** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Summers, P. E., Holdsworth, D. W., Nikolov, H. N., Rutt, B. K., Drangova, M.
2005; 21 (5): 620-631
- **Simple design guidelines for short MRI systems** *CONCEPTS IN MAGNETIC RESONANCE PART B-MAGNETIC RESONANCE ENGINEERING*
Zhang, B. B., Gazdzinski, C., Chronik, B. A., Xu, H., Conolly, S. M., Rutt, B. K.
2005; 25B (1): 53-59
- **Detection threshold of single SPIO-Labeled cells with FIESTA** *MAGNETIC RESONANCE IN MEDICINE*
Heyn, C., Bowen, C. V., Rutt, B. K., Foster, P. J.
2005; 53 (2): 312-320

- **High-resolution T-1 and T-2 mapping of the brain in a clinically acceptable time with DESPOT1 and DESPOT2** *MAGNETIC RESONANCE IN MEDICINE*
Deoni, S. C., Peters, T. M., Rutt, B. K.
2005; 53 (1): 237-241
- **Characterization of vibration and acoustic noise in a gradient-coil insert** *MAGNETIC RESONANCE MATERIALS IN PHYSICS BIOLOGY AND MEDICINE*
Yao, G. Z., Mechefske, C. K., Rutt, B. K.
2004; 17 (1): 12-27
- **Rapid T-2 estimation with phase-cycled variable nutation steady-state free precession** *MAGNETIC RESONANCE IN MEDICINE*
Deoni, S. C., Ward, H. A., Peters, T. M., Rutt, B. K.
2004; 52 (2): 435-439
- **Modal analysis and acoustic noise characterization of a 4T MRI gradient coil insert** *CONCEPTS IN MAGNETIC RESONANCE PART B-MAGNETIC RESONANCE ENGINEERING*
Mechefske, C. K., Yao, G., Li, W., Gazdzinski, C., Rutt, B. K.
2004; 22B (1): 37-49
- **Atherosclerotic plaque characterization by MR imaging.** *Current drug targets. Cardiovascular & haematological disorders*
Rutt, B. K., Clarke, S. E., Fayad, Z. A.
2004; 4 (2): 147-159
- **Acoustic noise analysis and prediction in a 4-T MRI scanner** *CONCEPTS IN MAGNETIC RESONANCE PART B-MAGNETIC RESONANCE ENGINEERING*
Li, W., Mechefske, C. K., Gazdzinski, C., Rutt, B. K.
2004; 21B (1): 19-25
- **Quantitative diffusion imaging with steady-state free precession** *MAGNETIC RESONANCE IN MEDICINE*
Deoni, S. C., Peters, T. M., Rutt, B. K.
2004; 51 (2): 428-433
- **Determination of optimal angles for variable nutation proton magnetic spin-lattice, T-1, and spin-spin, T-2, relaxation times measurement** *MAGNETIC RESONANCE IN MEDICINE*
Deoni, S. C., Peters, T. M., Rutt, B. K.
2004; 51 (1): 194-199
- **Quantitative assessment of carotid plaque composition using multicontrast MRI and registered histology** *MAGNETIC RESONANCE IN MEDICINE*
Clarke, S. E., Hammond, R. R., Mitchell, J. R., Rutt, B. K.
2003; 50 (6): 1199-1208
- **Peripheral nerve stimulation properties of head and body gradient coils of various sizes** *MAGNETIC RESONANCE IN MEDICINE*
Zhang, B. B., Yen, Y. F., Chronik, B. A., McKinnon, G. C., Schaefer, D. J., Rutt, B. K.
2003; 50 (1): 50-58
- **Imaging single mammalian cells with a 1.5 T clinical MRI scanner** *MAGNETIC RESONANCE IN MEDICINE*
Foster-Gareau, P., Heyn, C., Alejski, A., Rutt, B. K.
2003; 49 (5): 968-971
- **Rapid combined T-1 and T-2 mapping using gradient recalled acquisition in the steady state** *MAGNETIC RESONANCE IN MEDICINE*
Deoni, S. C., Rutt, B. K., Peters, T. M.
2003; 49 (3): 515-526
- **Reproducibility of image-based computational fluid dynamics models of the human carotid bifurcation** *ANNALS OF BIOMEDICAL ENGINEERING*
Thomas, J. B., Milner, J. S., Rutt, B. K., Steinman, D. A.
2003; 31 (2): 132-141
- **Visualization of neural DTI vector fields using line integral convolution** *6th International Conference on Medical Image Computing and Computer-Assisted Intervention*

Deoni, S. C., Rutt, B. K., Peters, T. M.

SPRINGER-VERLAG BERLIN.2003: 207–214

- **MRI gradient coil cylinder sound field simulation and measurement** *JOURNAL OF BIOMECHANICAL ENGINEERING-TRANSACTIONS OF THE ASME*
Mechefske, C. K., Wu, Y. H., Rutt, B. K.
2002; 124 (4): 450-455
- **Application of the static dephasing regime theory to superparamagnetic iron-oxide loaded cells** *MAGNETIC RESONANCE IN MEDICINE*
Bowen, C. V., Zhang, X. W., Saab, G., Gareau, P. J., Rutt, B. K.
2002; 48 (1): 52-61
- **Ultra-high-resolution imaging with a clinical MRI** *IEEE INSTRUMENTATION & MEASUREMENT MAGAZINE*
Alejski, A., Chen, Y. T., Rutt, B. K.
2002; 5 (2): 18-23
- **Improved contrast in multispectral phase images derived from magnetic resonance exams of multiple sclerosis patients** *MEDICAL PHYSICS*
Mitchell, J. R., Rutt, B. K.
2002; 29 (5): 727-735
- **Characterization of acoustic noise and magnetic field fluctuations in a 4 T whole-body MRI scanner** *MECHANICAL SYSTEMS AND SIGNAL PROCESSING*
Mechefske, C. K., Wu, Y. H., Rutt, B.
2002; 16 (2-3): 459-473
- **Acoustic noise reduction in a 4 T MRI scanner** *Workshop of the International-Society-for-Magnetic-Resonance-in-Medicine*
Mechefske, C. K., Geris, R., Gati, J. S., Rutt, B. K.
SPRINGER.2002: 172–76
- **Reconstruction of carotid bifurcation hemodynamics and wall thickness using computational fluid dynamics and MRI** *MAGNETIC RESONANCE IN MEDICINE*
Steinman, D. A., Thomas, J. B., Ladak, H. M., Milner, J. S., Rutt, B. K., Spence, J. D.
2002; 47 (1): 149-159
- **A comparison between human magnetostimulation thresholds in whole-body and head/neck gradient coils** *MAGNETIC RESONANCE IN MEDICINE*
Chronik, B. A., Rutt, B. K.
2001; 46 (2): 386-394
- **Effect of black blood MR image quality on vessel wall segmentation** *MAGNETIC RESONANCE IN MEDICINE*
Thomas, J. B., Rutt, B. K., Ladak, H. M., Steinman, D. A.
2001; 46 (2): 299-304
- **A semi-automatic technique for measurement of arterial wall from black blood MRI** *MEDICAL PHYSICS*
Ladak, H. M., Thomas, J. B., Mitchell, J. R., Rutt, B. K., Steinman, D. A.
2001; 28 (6): 1098-1107
- **Carotid plaque characterization by magnetic resonance imaging: review of the literature.** *Topics in magnetic resonance imaging*
DEMARCO, J. K., Rutt, B. K., Clarke, S. E.
2001; 12 (3): 205-217
- **Simple linear formulation for magnetostimulation specific to MRI gradient coils** *MAGNETIC RESONANCE IN MEDICINE*
Chronik, B. A., Rutt, B. K.
2001; 45 (5): 916-919
- **Simultaneous MRI measurement of blood flow, blood volume, and capillary permeability in mammary tumors using two different contrast agents** *7th Annual ISMRM Meeting*
Henderson, E., Sykes, J., Drost, D., Weinmann, H. J., Rutt, B. K., Lee, T. Y.
JOHN WILEY & SONS INC.2000: 991–1003

- **Design and fabrication of a three-axis edge ROU head and neck gradient coil** *MAGNETIC RESONANCE IN MEDICINE*
Chronik, B. A., Alejski, A., Rutt, B. K.
2000; 44 (6): 955-963
- **Gradient-induced acoustic and magnetic field fluctuations in a 4T whole-body MR imager** *MAGNETIC RESONANCE IN MEDICINE*
Wu, Y. H., Chronik, B. A., Bowen, C., Mechefske, C. K., Rutt, B. K.
2000; 44 (4): 532-536
- **MRI measures of middle cerebral artery diameter in conscious humans during simulated orthostasis** *STROKE*
Serrador, J. M., Picot, P. A., Rutt, B. K., Shoemaker, J. K., Bondar, R. L.
2000; 31 (7): 1672-1678
- **Magnetization transfer and multicomponent T2 relaxation measurements with histopathologic correlation in an experimental model of MS** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Gareau, P. J., Rutt, B. K., Karlik, S. J., Mitchell, J. R.
2000; 11 (6): 586-595
- **Design and fabrication of a three-axis multilayer gradient coil for magnetic resonance microscopy of mice** *MAGNETIC RESONANCE MATERIALS IN PHYSICS BIOLOGY AND MEDICINE*
Chronik, B., Alejski, A., Rutt, B. K.
2000; 10 (2): 131-146
- **Design and fabrication of a three-axis multilayer gradient coil for magnetic resonance microscopy of mice.** *Magma (New York, N.Y.)*
Chronik, B., Alejski, A., Rutt, B. K.
2000; 10 (2): 131-146
- **Polyvinyl alcohol-Fricke hydrogel and cryogel: two new gel dosimetry systems with low Fe3+ diffusion** *PHYSICS IN MEDICINE AND BIOLOGY*
Chu, K. C., Jordan, K. J., Battista, J. J., Van Dyk, J., Rutt, B. K.
2000; 45 (4): 955-969
- **Comparison of two blood pool contrast agents for 0.5-T MR angiography: Experimental study in rabbits** *RADIOLOGY*
Clarke, S. E., Weinmann, H. J., Dai, E. B., Lucas, A. R., Rutt, B. K.
2000; 214 (3): 787-794
- **A transmit-only/receive-only (TORO) RF system for high-field MRI/MRS applications** *MAGNETIC RESONANCE IN MEDICINE*
Barberi, E. A., Gati, J. S., Rutt, B. K., Menon, R. S.
2000; 43 (2): 284-289
- **Identification of atherosclerotic plaque components using cluster analysis of multispectral MR images: comparison with histology** *Medical Imaging 2000 Conference*
Clarke, S., Rutt, B., Lucas, A., Lownie, S., Hammond, R., Mitchell, J. R.
SPIE-INT SOC OPTICAL ENGINEERING.2000: 304-11
- **MRI gradient coil cylinder sound field simulation and measurement** *7th International Conferenc on Recent Advances in Structural Dynamics*
Mechefske, C. K., Wu, Y. H., Rutt, B. K.
INST SOUND VIBRATION RESEARCH.2000: 995-1002
- **Measurement of Gd-DTPA diffusion through PVA hydrogel using a novel magnetic resonance imaging method** *BIOTECHNOLOGY AND BIOENGINEERING*
Gordon, M. J., Chu, K. C., Margaritis, A., Martin, A. J., Ethier, C. R., Rutt, B. K.
1999; 65 (4): 459-467
- **In vivo measurements of multi-component T-2 relaxation behaviour in guinea pig brain** *MAGNETIC RESONANCE IMAGING*
Gareau, P. J., Rutt, B. K., Bowen, C. V., Karlik, S. J., Mitchell, J. R.
1999; 17 (9): 1319-1325
- **A fast 3D Look-Locker method for volumetric T-1 mapping** *MAGNETIC RESONANCE IMAGING*
Henderson, E., McKinnon, G., Lee, T. Y., Rutt, B. K.
1999; 17 (8): 1163-1171

- **Anthropomorphic carotid bifurcation phantom for MRI applications** *4th Annual Meeting of ISMRM*
Smith, R. F., Rutt, B. K., Holdsworth, D. W.
JOHN WILEY & SONS INC.1999: 533–44
- **Computational blood flow modeling based on in vivo measurements** *ANNALS OF BIOMEDICAL ENGINEERING*
Moore, J. A., Rutt, B. K., Karlik, S. J., Yin, K., Ethier, C. R.
1999; 27 (5): 627-640
- **Characterization of common carotid artery blood-flow waveforms in normal human subjects** *PHYSIOLOGICAL MEASUREMENT*
Holdsworth, D. W., Norley, C. J., Frayne, R., Steinman, D. A., Rutt, B. K.
1999; 20 (3): 219-240
- **Scanning time efficient slinky for non-contrast MRA at low field** *MAGNETIC RESONANCE IMAGING*
Liu, K. C., Tanttu, J., Castren, A., Rutt, B. K.
1999; 17 (5): 689-698
- **A post-processing technique to suppress fluid signal and increase contrast in multispectral MR exams of MS patients** *2nd International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI 99)*
Mitchell, J. R., Gareau, P., Karlik, S., Rutt, B.
SPRINGER-VERLAG BERLIN.1999: 218–226
- **Temporal sampling requirements for the tracer kinetics modeling of breast disease** *MAGNETIC RESONANCE IMAGING*
Henderson, E., Rutt, B. K., Lee, T. Y.
1998; 16 (9): 1057-1073
- **Polar sampling in k-space: Reconstruction effects** *MAGNETIC RESONANCE IN MEDICINE*
Lauzon, M. L., Rutt, B. K.
1998; 40 (5): 769-782
- **Invasive carcinomas and fibroadenomas of the breast: Comparison of microvessel distributions - Implications for imaging modalities** *RADIOLOGY*
Weind, K. L., Maier, C. F., Rutt, B. K., Moussa, M.
1998; 208 (2): 477-483
- **Hemodynamics of human carotid artery bifurcations: Computational studies with models reconstructed from magnetic resonance imaging of normal subjects** *12th Annual Meeting of the Western-Vascular-Society*
Milner, J. S., Moore, J. A., Rutt, B. K., Steinman, D. A.
MOSBY-ELSEVIER.1998: 143–56
- **Sliding interleaved k(Y) (SLINKY) acquisition: A novel 3D MRA technique with suppressed slab boundary artifact** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
LIU, K. C., Rutt, B. K.
1998; 8 (4): 903-911
- **Systematic assessment and evaluation of sliding interleaved k(Y) (SLINKY) acquisition for 3D MRA** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
LIU, K. C., Lee, D. H., Rutt, B. K.
1998; 8 (4): 912-923
- **On the nature and reduction of plaque-mimicking flow artifacts in black blood MRI of the carotid bifurcation** *ISMRM 5th Annual Scientific Meeting*
Steinman, D. A., Rutt, B. K.
JOHN WILEY & SONS INC.1998: 635–41
- **Practical design of a high-strength breast gradient coil** *MAGNETIC RESONANCE IN MEDICINE*
Maier, C. F., Nikolov, H. N., Chu, K. C., Chronik, B. A., Rutt, B. K.
1998; 39 (3): 392-401
- **Constrained length minimum inductance gradient coil design** *MAGNETIC RESONANCE IN MEDICINE*
Chronik, B. A., Rutt, B. K.

1998; 39 (2): 270-278

- **An expandable intravenous RF coil for arterial wall imaging** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Martin, A. J., McLoughlin, R. F., Chu, K. C., Barberi, E. A., Rutt, B. K.
1998; 8 (1): 226-234
- **Bi-exponential T-2 decay in dairy cream phantoms** *MAGNETIC RESONANCE IMAGING*
Jones, C., MacKay, A., Rutt, B.
1998; 16 (1): 83-85
- **Multistep phase difference phase contrast imaging** *JMRI-JOURNAL OF MAGNETIC RESONANCE IMAGING*
Lamothe, M. J., Rutt, B. K.
1997; 7 (5): 838-842
- **Experimental determination of the BOLD field strength dependence in vessels and tissue** *MAGNETIC RESONANCE IN MEDICINE*
Gati, J. S., Menon, R. S., Ugurbil, K., Rutt, B. K.
1997; 38 (2): 296-302
- **MR multispectral analysis of multiple sclerosis lesions** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Mitchell, J. R., Jones, C., Karlik, S. J., Kennedy, K., Lee, D. H., Rutt, B., Fenster, A.
1997; 7 (3): 499-511
- **Quantitative diffusion imaging in implanted human breast tumors** *MAGNETIC RESONANCE IN MEDICINE*
Maier, C. F., Paran, Y., Bendel, P., Rutt, B. K., Degani, H.
1997; 37 (4): 576-581
- **Combined analysis of spatial and velocity displacement artifacts in phase contrast measurements of complex flows** *4th Annual Scientific Meeting of the International-Society-for-Magnetic-Resonance-in-Medicine*
Steinman, D. A., Ethier, C. R., Rutt, B. K.
JOHN WILEY & SONS INC. 1997: 339-46
- **Polyvinyl alcohol cryogel: An ideal phantom material for MR studies of arterial flow and elasticity** *MAGNETIC RESONANCE IN MEDICINE*
Chu, K. C., Rutt, B. K.
1997; 37 (2): 314-319
- **Differences in perceived shape from shading correlate with activity in early visual areas** *CURRENT BIOLOGY*
Humphrey, G. K., Goodale, M. A., Bowen, C. V., Gati, J. S., Vilis, T., Rutt, B. K., Menon, R. S.
1997; 7 (2): 144-147
- **Effects of polar sampling in k-space** *MAGNETIC RESONANCE IN MEDICINE*
Lauzon, M. L., Rutt, B. K.
1996; 36 (6): 940-949
- **Geometric characterization of stenosed human carotid arteries** *ACADEMIC RADIOLOGY*
Smith, R. F., Rutt, B. K., Fox, A. J., Rankin, R. N., Holdsworth, D. W.
1996; 3 (11): 898-911
- **Improved MR images of arterial specimens by submersion in trichlorotrifluoroethane** *MAGNETIC RESONANCE IN MEDICINE*
Chu, K. C., Martin, A. J., Rutt, B. K.
1996; 35 (5): 790-796
- **MR measurement and numerical simulation of steady flow in an end-to-side anastomosis model** *JOURNAL OF BIOMECHANICS*
Steinman, D. A., Frayne, R., Zhang, X. D., Rutt, B. K., Ethier, C. R.
1996; 29 (4): 537-542
- **The impact of field strength on image quality in MRI** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Rutt, B. K., Lee, D. H.
1996; 6 (1): 57-62

- **NOVEL LOW-DOSAGE HORMONAL REPLACEMENT THERAPY COMPLEMENTS DIETARY-TREATMENT OF MODERATELY HYPERCHOLESTEROLEMIC POSTMENOPAUSAL WOMEN** *CLINICAL AND INVESTIGATIVE MEDICINE-MEDECINE CLINIQUE ET EXPERIMENTALE*
Wolfe, B. M., Nisker, J. A., Hutton, L. C., Rutt, B. K.
1995; 18 (5): 362-369
- **A NOVEL TRANSVERSE GRADIENT COIL DESIGN FOR HIGH-RESOLUTION MR-IMAGING** *MAGNETIC RESONANCE IN MEDICINE*
Maier, C. F., Chu, K. C., Chronik, B. A., Rutt, B. K.
1995; 34 (4): 604-611
- **MEASUREMENT OF FLUID-SHEAR RATE BY FOURIER-ENCODED VELOCITY IMAGING** *MAGNETIC RESONANCE IN MEDICINE*
Frayne, R., Rutt, B. K.
1995; 34 (3): 378-387
- **MR GRADIENT COIL HEAT DISSIPATION** *MAGNETIC RESONANCE IN MEDICINE*
Chu, K. C., Rutt, B. K.
1995; 34 (1): 125-132
- **ACCURACY OF MR PHASE-CONTRAST VELOCITY-MEASUREMENTS FOR UNSTEADY-FLOW** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Frayne, R., Steinman, D. A., Ethier, C. R., Rutt, B. K.
1995; 5 (4): 428-431
- **UNDERSTANDING ACCELERATION INDUCED DISPLACEMENT ARTIFACTS IN PHASE-CONTRAST MR VELOCITY-MEASUREMENTS** *JMRI-JOURNAL OF MAGNETIC RESONANCE IMAGING*
Frayne, R., Rutt, B. K.
1995; 5 (2): 207-215
- **FREQUENCY-RESPONSE OF PROSPECTIVELY GATED PHASE-CONTRAST MR VELOCITY-MEASUREMENTS** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Frayne, R., Rutt, B. K.
1995; 5 (1): 65-73
- **EFFECTS OF PHYSIOLOGICAL WAVE-FORM VARIABILITY IN TRIGGERED MR-IMAGING - THEORETICAL-ANALYSIS** *JMRI-JOURNAL OF MAGNETIC RESONANCE IMAGING*
Lauzon, M. L., Holdsworth, D. W., Frayne, R., Rutt, B. K.
1994; 4 (6): 853-867
- **TURBINE FLOW SENSOR FOR VOLUME-FLOW RATE VERIFICATION IN MR** *MAGNETIC RESONANCE IN MEDICINE*
Frayne, R., Holdsworth, D. W., Smith, R. F., Kasrai, R., LARSEN, J. P., Rutt, B. K.
1994; 32 (3): 410-417
- **QUADRUPOLE GRADIENT COIL DESIGN AND OPTIMIZATION - A PRINTED-CIRCUIT BOARD APPROACH** *MAGNETIC RESONANCE IN MEDICINE*
Chu, K. C., Rutt, B. K.
1994; 31 (6): 652-659
- **Poster production by color laser imager.** *The Journal of biocommunication*
Rankin, R. N., Downey, D. B., Rutt, B. K., Rankin, R. N.
1994; 21 (3): 22-24
- **STENOSSED ANTHROPOMORPHIC VASCULAR PHANTOMS FOR DIGITAL SUBTRACTION ANGIOGRAPHY, MAGNETIC-RESONANCE AND DOPPLER ULTRASOUND INVESTIGATIONS** *Conference on Physics of Medical Imaging: Medical Imaging 1994*
Smith, R. F., Frayne, R., Moreau, M., Rutt, B. K., Fenster, A., Holdsworth, D. W.
SPIE - INT SOC OPTICAL ENGINEERING.1994: 235-242
- **FREQUENCY-RESPONSE OF RETROSPECTIVELY GATED PHASE-CONTRAST MR-IMAGING - EFFECT OF INTERPOLATION** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Frayne, R., Rutt, B. K.
1993; 3 (6): 907-917

- **GENERALIZED K-SPACE ANALYSIS AND CORRECTION OF MOTION EFFECTS IN MR-IMAGING** *MAGNETIC RESONANCE IN MEDICINE*
Lauzon, M. L., Rutt, B. K.
1993; 30 (4): 438-446
- **A GEOMETRICALLY ACCURATE VASCULAR PHANTOM FOR COMPARATIVE-STUDIES OF X-RAY, ULTRASOUND, AND MAGNETIC-RESONANCE VASCULAR IMAGING - CONSTRUCTION AND GEOMETRICAL VERIFICATION** *MEDICAL PHYSICS*
Frayne, R., GOWMAN, L. M., Rickey, D. W., Holdsworth, D. W., Picot, P. A., Drangova, M., Chu, K. C., Caldwell, C. B., Fenster, A., Rutt, B. K.
1993; 20 (2): 415-425
- **COMPUTER-CONTROLLED FLOW SIMULATOR FOR MR FLOW STUDIES** *JMRI-JOURNAL OF MAGNETIC RESONANCE IMAGING*
Frayne, R., Holdsworth, D. W., GOWMAN, L. M., Rickey, D. W., Drangova, M., Fenster, A., Rutt, B. K.
1992; 2 (5): 605-612
- **INTERACTIVE DISPLAY OF VOLUMETRIC DATA BY FAST FOURIER PROJECTION** *COMPUTERIZED MEDICAL IMAGING AND GRAPHICS*
Dunne, S., Napel, S., Rutt, B.
1992; 16 (4): 237-251
- **APPLICATION OF PROJECTION PRESATURATION TO LOCALIZED PROTON RELAXOMETRY** *JOURNAL OF MAGNETIC RESONANCE*
Singh, S., TAYLOR, C. P., Rutt, B. K.
1992; 98 (1): 49-61
- **Visualizing three-dimensional flow with simulated streamlines and three-dimensional phase-contrast MR imaging.** *Journal of magnetic resonance imaging : JMRI*
Napel, S., Lee, D. H., Frayne, R., Rutt, B. K.
1992; 2 (2): 143-153
- **VISUALIZING 3-DIMENSIONAL FLOW WITH SIMULATED STREAMLINES AND 3-DIMENSIONAL PHASE-CONTRAST MR IMAGING** *JMRI-JOURNAL OF MAGNETIC RESONANCE IMAGING*
Napel, S., Lee, D. H., Frayne, R., Rutt, B. K.
1992; 2 (2): 143-153
- **AN IN-VITRO MULTIMODALITY VASCULAR PHANTOM** *18th Canadian Medical and Biological Engineering Conference (CMBEC 18)*
Frayne, R., GOWMAN, L. M., Rickey, D. W., Holdsworth, D. W., Picot, P. A., Drangova, M., Chu, K. C., Fenster, A., Rutt, B. K.
CANADIAN MEDICAL & BIOLOGICAL ENGINEERING SOC.1992: 180-181
- **AORTIC-VALVE ROOT INTERACTIONS IN PORCINE HEARTS - IMPLICATIONS FOR BIOPROSTHETIC VALVE SIZING** *5TH INTERNATIONAL SYMP ON CARDIAC BIOPROSTHESES*
Vesely, I., Menkis, A. H., Rutt, B., Campbell, G.
FUTURA PUBL CO.1991: 482-89
- **A PROTOTYPE HIGH-PURITY GERMANIUM DETECTOR SYSTEM WITH FAST PHOTON-COUNTING CIRCUITRY FOR MEDICAL IMAGING** *MEDICAL PHYSICS*
Hasegawa, B. H., Stebler, B., Rutt, B. K., Martinez, A., Gingold, E. L., Barker, C. S., Faulkner, K. G., Cann, C. E., Boyd, D. P.
1991; 18 (5): 900-909
- **FAST FOURIER PROJECTION FOR MR ANGIOGRAPHY** *MAGNETIC RESONANCE IN MEDICINE*
Napel, S., Dunne, S., Rutt, B. K.
1991; 19 (2): 393-405
- **MAGNETIC-RESONANCE TECHNIQUES FOR BLOOD-FLOW MEASUREMENT AND VASCULAR IMAGING** *JOURNAL OF THE CANADIAN ASSOCIATION OF RADIOLOGISTS-JOURNAL DE L ASSOCIATION CANADIENNE DES RADIOLOGISTES*
Rutt, B. K., Napel, S.
1991; 42 (1): 21-30
- **ANALYSIS OF AORTIC-VALVE GEOMETRY USING DYNAMIC, 3-DIMENSIONAL DISPLAY** *1991 ANNUAL INTERNATIONAL CONF OF THE IEEE ENGINEERING IN MEDICINE AND BIOLOGY SOC*
Vesely, I., EICKMEIER, W., Rutt, B., Campbell, G.
I E E E.1991: 1181-1182
- **PROJECTION PRESATURATION .2. SINGLE-SHOT LOCALIZATION OF MULTIPLE REGIONS OF INTEREST** *JOURNAL OF MAGNETIC RESONANCE*

- Singh, S., Rutt, B. K., Napel, S.
1990; 90 (2): 313-329
- **PROJECTION PRESATURATION - A FAST AND ACCURATE TECHNIQUE FOR MULTIDIMENSIONAL SPATIAL LOCALIZATION** *JOURNAL OF MAGNETIC RESONANCE*
Singh, S., Rutt, B. K., Henkelman, R. M.
1990; 87 (3): 567-583
 - **THE USE OF MAGNETIC-RESONANCE-IMAGING IN EXERTIONAL COMPARTMENT SYNDROMES** *AMERICAN JOURNAL OF SPORTS MEDICINE*
Amendola, A., Rorabeck, C. H., VELLETT, D., Vezina, W., Rutt, B., Nott, L.
1990; 18 (1): 29-34
 - **DIGITAL TELERADIOLOGY - SEAFORTH - LONDON NETWORK** *JOURNAL OF THE CANADIAN ASSOCIATION OF RADIOLOGISTS-JOURNAL DE L ASSOCIATION CANADIENNE DES RADIOLOGISTES*
CAREY, L. S., OCONNOR, B. D., Bach, D. B., Hobbs, B. B., Hutton, L. C., Lefcoe, M. S., LYONS, R. O., MUNRO, T. G., Paterson, R. G., Rankin, R. N., Rutt, B. K.
1989; 40 (2): 71-74
 - **PATIENT ANESTHESIA AND MONITORING AT A 1.5-T MRI INSTALLATION** *MAGNETIC RESONANCE IN MEDICINE*
Karlik, S. J., HEATHERLEY, T., Pavan, F., Stein, J., Lebron, F., Rutt, B., Carey, L., Wexler, R., Gelb, A.
1988; 7 (2): 210-221
 - **VERTEBRAL MINERAL DETERMINATION BY QUANTITATIVE COMPUTED-TOMOGRAPHY (QCT) - ACCURACY OF SINGLE AND DUAL ENERGY MEASUREMENTS** *JOURNAL OF COMPUTER ASSISTED TOMOGRAPHY*
Gluer, C. C., REISER, U. J., Davis, C. A., Rutt, B. K., Genant, H. K.
1988; 12 (2): 242-258
 - **WHOLE-BODY CT SCANNER FOR ULTRAPRECISE, ULTRAACCURATE DETERMINATION OF BONE-DENSITY**
Rutt, B. K., STEBLER, B. G., Cann, C. E., Boyd, D. P., Genant, H. K., Manatt, S. L.
LIPPINCOTT-RAVEN PUBL.1985: 609-10
 - **SELECTIVE IODINE IMAGING USING LANTHANUM-K FLUORESCENCE** *MEDICAL PHYSICS*
Rutt, B. K., Cunningham, I. A., Fenster, A.
1983; 10 (6): 801-808
 - **A XENON IONIZATION DETECTOR FOR SCANNED PROJECTION RADIOGRAPHY - THEORETICAL CONSIDERATIONS** *MEDICAL PHYSICS*
Rutt, B. K., Drost, D. J., Fenster, A.
1983; 10 (3): 284-292
 - **SPLIT-FILTER COMPUTED-TOMOGRAPHY (CT) FOR ROUTINE DUAL ENERGY SCANNING** *PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS*
Rutt, B., Fenster, A.
1981; 273: 294-300
 - **SPLIT-FILTER COMPUTED-TOMOGRAPHY - A SIMPLE TECHNIQUE FOR DUAL ENERGY SCANNING** *JOURNAL OF COMPUTER ASSISTED TOMOGRAPHY*
Rutt, B., Fenster, A.
1980; 4 (4): 501-509