# The Johns Hopkins University School of Medicine

Appendix V; revised 07/23/07

## DEMOGRAPHIC INFORMATION

**Current Appointments**
Johns Hopkins University

**Personal Data**
601 North Caroline Street, JHOC 4253A, Baltimore MD 21287, 433-287-2974, 443-614-1977, ktaguchi@jhmi.edu

**Education and Training (in chronological order)**

| | Degrees/Year | Institution | Discipline |
|---|---|---|---|
| • Undergraduate | B.Sc./1989 | Tokyo Institute of Technology (Tokyo, Japan) | Mechanical Eng. Science |
| • Doctoral/graduate | M.Sc./1991 | Tokyo Institute of Technology (Tokyo, Japan) | Mechanical Eng. Science |
| | Ph.D./2002 | University of Tsukuba (Ibaraki, Japan) | Information Science and Electrical Engineering |

**Professional Experience (in chronological order)**

| Dates | Positions | Institutions |
|---|---|---|
| 1991-1998 | Researcher | Toshiba Medical Systems Corporation, Tochigi, Japan |
| 1998-2002 | Project Researcher | Toshiba Medical Systems Corporation, Tochigi, Japan |
| 1998-2000 | Visiting Scientist | University of Utah, Salt Lake City, Utah |
| 2002-2005 | Senior Scientist | Toshiba Medical Systems Corporation, Tochigi, Japan |
| | Senior Imaging Scientist | Toshiba America Medical Systems, Tustin, Japan |
| 2005-2007 | Instructor | Department of Radiology, Johns Hopkins University |
| 2007-present | Assistant Professor | Department of Radiology, Johns Hopkins University |

## RESEARCH ACTIVITIES

**Publications** (include only those published or in press; do not include submitted, in preparation, or planned)

A. Peer-reviewed original research articles

1 Obikawa T, **Taguchi K**, Sasahara H, Shirakashi K, and Usui E, "Finite element analysis on discontinuous chip formation," *Journal of SPE*, Vol. 59, No. 5, May 1993, pp. 119-124.

2 **Taguchi K** and Aradate H, "Algorithm for image reconstruction in multi-slice helical CT," *Medical Physics*, Vol. 25, No. 4, April 1998, pp. 550-561.

3 **Taguchi K** and Anno H, "High temporal resolution for multi-slice helical computed tomography," *Medical Physics*, Vol. 27, No. 5, May 2000, pp. 861-872.

4 **Taguchi K**, Miyashita S, and Ogawa Y, "New image reconstruction algorithm for increasing spatial resolution in trans-axial plane with helical CT: Principles and physical characteristics," *Journal Medical Imaging Technology*, Vol. 19, No. 3, May 2001, pp. 175-186.

5 **Taguchi K**, Zeng GL, and Gullberg GT, "Cone-beam image reconstruction using spherical harmonics," *Physics in Medicine and Biology,* Vol. 46, No. 6, June 2001, pp. N127-N138.

6 **Taguchi K**, "Temporal resolution and the evaluation of candidate algorithms for four-dimensional CT," *Medical Physics*, Vol. 30, No. 4, April 2003, pp. 640-650.

7 Mori I, Kazama M, Igarashi N, and **Taguchi K**, "Method for suppressing alias artifacts in R/R-type CT," *Journal Medical Imaging Technology*, Vol. 21, No. 4, September 2003, pp. 254-264.

8 Hein IA#, **Taguchi K**, Silver MD, Kazama M, and Mori I, "Cone-beam reconstruction algorithm for gantry-tilted helical multislice CT," *Medical Physics*, Vol. 30, No. 12, December 2003, pp. 3233-3242.

9 **Taguchi K**, Chiang BS, and Silver MD, "A new weighting scheme for cone-beam helical CT to reduce the image noise," *Physics in Medicine and Biology*, Vol. 49, June 7, 2004, pp. 2351-2364.

10 **Taguchi K**, Aradate H, Saito Y, Zmora I, Han KS, Silver MD, "The cause of the artifact in 4-slice helical CT," *Medical Physics*, Vol. 31, July 2004, pp. 2033-2037.

11 Zamyatin AA#, **Taguchi K**, and Silver MD, "Helical cone beam reconstruction with asymmetrically truncated detector," *Medical Physics*, Vol. 32, October 2005, pp. 3117-3127.

12 **Taguchi K**, Chiang BS, and Hein IA, "Direct cone-beam cardiac reconstruction algorithm with a cardiac banding artifact correction," *Medical Physics*, Vol. 33, February 2006, pp. 521-539.

13 Zamyatin AA#, **Taguchi K**, and Silver MD, "Practical hybrid convolution algorithm for CT reconstruction," *IEEE Trans. Nuclear Science*, Vol. 53, February 2006, pp. 167-174.

14 Katsevich A, **Taguchi K**, and Zamyatin AA, "Formulation of four Katsevich algorithms in native geometry," *IEEE Trans. Medical Imaging*, Vol, 25, July 2006, pp. 855-868.

B. Monographs

1 **Taguchi K** and Saito Y, "Multi-slice CT," *Japanese Journal of Radiological Technology,* Vol. 55, No. 2, February 1999, pp.155-164.

2 **Taguchi K**, "Improvement of the temporal resolution in helical scan," JIRA technical report, Vol. 20, No. 19, 2001.

3 **Taguchi K**, "Image reconstruction in helical CT," *Journal Medical Imaging Technology*, Vol. 19, No. 6, November 2001, pp. 436-443.

C. Book Chapters

1. **Taguchi K.** Multi-slice CT toward the four-dimensional CT. (In) All about multidetector helical CT. Edited by Takahashi M. and Arakawa A. (Kanehara Publishing, Inc., Tokyo, Japan) pp. 16-20, 2002.

D. Conference records and Proceedings

1 **Taguchi K**, Farina D, Kanebako T, Nakayama H, and Asahina H, "Automatic contour tracing of the left ventricle from one cardiac cycle images of DF", proceedings of the 13th conference of the *Japanese Society of Medical Imaging Technology*, Vol. 12, No. 4, July 1994, pp. 531-532.

2 **Taguchi K**, Zeng GL, and Gullberg GT, "Cone-Beam image reconstruction using spherical harmonics: Short-object problem with midsize-detector," *IEEE Nuclear Science Symp. and Medical Imaging Conference* 2000, 147 (Lyon, France) (New York: IEEE).

3 **Taguchi K**, Zeng GL, and Gullberg GT, "Cone-Beam image reconstruction from equi-angular sampling using spherical harmonics," *SPIE Medical Imaging* 2001*,* 4322-96, San Diego, CA, U.S.A.

4 Silver MD#, **Taguchi K**, and Han K, "Field of view dependent helical pitch in cone-beam CT", *SPIE Medical Imaging 2001,* 4320-103, San Diego, CA, U.S.A.

5 **Taguchi K**, "High temporal resolution for four-dimensional computed tomography (4D-CT)," *the 6th international meeting of fully three-dimensional reconstruction in radiology and nuclear medicine,* October 2001, pp. 175-178.

6 Silver MD#, **Taguchi K**, and Hein IA, "A simple algorithm for increased helical pitch in cone-beam CT," *the 6th international meeting of fully three-dimensional reconstruction in radiology and nuclear medicine,* October 2001, pp. 70-73.

7 Silver MD#, **Taguchi K**, Hein IA, Chiang BS, Kazama M, and Mori I, "Windmill artifact in multi-slice helical CT," *SPIE Medical Imaging 2003,* 5032-212, San Diego, CA, U.S.A.

8 Hein IA#, **Taguchi K**, Mori I, Kazama M, and Silver MD, "Tilted helical Feldkamp cone-beam reconstruction algorithm for multislice CT," *SPIE Medical Imaging 2003,* **5032-210,** San Diego, CA, U.S.A

9 **Taguchi K**, Chiang BS, and Silver MD, "New weighting scheme for cone-beam helical CT to reduce the image noise," *the 7th international conference on fully three-dimensional reconstruction in radiology and nuclear medicine,* June 2003, pp. 15-19.

10 Silver MD# and **Taguchi K**, "Evaluation of 40-slice multi-slice CT with non-uniform detector," *the 7th international conference on fully three-dimensional reconstruction in radiology and nuclear medicine,* June 2003, pp. 80-83.

11 Zamyatin AA#, **Taguchi K**, and Silver MD, "Practical hybrid convolution algorithm for CT reconstruction," *IEEE Nuclear Science Symp. and Medical Imaging Conference* 2004 (Rome, Italy) (New York: IEEE).

12 **Taguchi K**, Katsevich A, Zamyatin AA, "Performance evaluation of exact and approximate cone-beam helical reconstruction algorithms," *the 8th international conference on fully three-dimensional reconstruction in radiology and nuclear medicine,* July 6-9, 2005, pp. 23-27 (Salt Lake City, Utah).
13 Katsevich A, **Taguchi K**, Zamyatin AA, "Formulation of four Katsevich algorithms in native geometry," *the 8th international conference on fully three-dimensional reconstruction in radiology and nuclear medicine,* July 6-9, 2005, pp. 323-327 (Salt Lake City, Utah).
14 Zamyatin AA#, **Taguchi K**, Silver MD, "Reconstruction algorithm for wide cone-beam helical CT," *IEEE Nuclear Science Symp. and Medical Imaging Conference* 2005 (Puerto Rico) (New York: IEEE).
15 Segars WP, **Taguchi K**, Fung GSK, Fishman EK, and Tsui BMW, "Effect of heart rate on CT angiography using the enhanced cardiac model of the 4D NCAT", *SPIE Medical Imaging 2006,* 6142-18, San Diego, CA, U.S.A.
16 **Taguchi K**, Segars WP, Fung GSK, and Tsui BMW, "Toward time resolved 4D cardiac CT imaging with patient dose reduction: estimating the global heart motion", *SPIE Medical Imaging 2006,* 6142-19, San Diego, CA, U.S.A.
17 Fung GSK, Segars WP, **Taguchi K**, Fishman EK, and Tsui BMW, "Development of a computer-generated model for the coronary arterial tree based on multislice CT and morphometric data", *SPIE Medical Imaging 2006,* 6142-58, San Diego, CA, U.S.A.
18 **Taguchi K**, Segars WP, Kudo H, Frey EC, Fishman EK, and Tsui BMW, "Toward time resolved 4D cardiac CT imaging with patient dose reduction: image-based motion estimation", *IEEE Nuclear Science Symp. and Medical Imaging Conference* 2006 (San Diego) (New York: IEEE) M06-233.
19 **Taguchi K,** Sun Z, Segars WP, Fishman EK, and Tsui BMW, "Image-based motion compensated time resolved 4D cardiac CT," *SPIE Medical Imaging 2007,* 6510-16, San Diego, CA, U.S.A.
20 **Taguchi K,** Zhang M, Frey EC, Xu J, Segars WP, Tsui BMW, "Image-domain material decomposition using photon-counting CT," *SPIE Medical Imaging 2007*, 6510-07, San Diego, CA, U.S.A.
21 Frey EC, **Taguchi K,** Kapusta M, *et al.*, "Micro-computed tomography with a photon-counting x-ray detector," *SPIE Medical Imaging 2007*, 6510-1R, San Diego, CA, U.S.A.
22 Frey EC, Wang X, Du Y, **Taguchi K,** Xu J, and Tsui BMW, "Investigation of the use of photon-counting detectors with energy discrimination capability for material decomposition in micro-computed tomography," *SPIE Medical Imaging 2007*, 6510-0A, San Diego, CA, U.S.A.
23 Xu J, Frey EC, **Taguchi K**, Tsui BMW, "A Poisson likelihood iterative reconstruction algorithm for material decomposition in CT," *SPIE Medical Imaging 2007*, 6510-70, San Diego, CA, U.S.A.
24 **Taguchi K** and Kudo H, "Motion compensated fan-beam reconstruction for computed tomography using derivative backprojection filtering approach," In: Kachelriess M and Beekman F, editors. *The 9th international conference on fully three-dimensional reconstruction in radiology and nuclear medicine,* July 9-13, 2007, pp. 433-436 (Lindau, Germany).

**Inventions, Patents, Copyrights (pending, awarded)**

**U.S. Patents**

1 **Taguchi K.,** Yamada S., and Ema T., No. 5,807,256, "Medical information processing system for supporting diagnosis (The way to display results of computer aided diagnosis (CAD))," Sepember 15, 1998.
2 **Taguchi K.,** No. 5,825,842, "X-ray computed tomographic imaging device and X-ray computed tomographic method (Generalized helical Feldkamp algorithm)," October 20, 1998.
3 **Taguchi K.** and Kobayashi T., No. 5,838,756, "Radiation computed tomography apparatus (Double centering)," November 17, 1998.
4 **Taguchi K.** and Aradate H., No. 5,974,108, "Image reconstruction apparatus (Helical filter interpolation algorithm, HFI)," October 26, 1999.
5 **Taguchi K.**, No. 6,028,908, "X-ray CT scanning apparatus (Helical QQ algorithm)," February 22, 2000.
6 Saito Y., Ihira K., **Taguchi K.** Suzuki T., Miyazaki H, Muraki K. and Aradate H.,, No. 6,157,696, "X-ray CT scanning apparatus (Adaptive type of multi-slice CT detector array)," December 5, 2000.
7 Nambu K., **Taguchi K.** and Oishi S., No. 6,196,715, "X-ray tomo-synthesis apparatus (Volumetric imaging algorithm using digital tomo-synthesis apparatus)," March 6, 2001.
8 Saito Y., Aradate H., and **Taguchi K.**, No. 6,215,843, "X-ray CT scanning apparatus (Multi-row detector with uniform sensitivity)," April 10, 2001.
9 **Taguchi K.** and Suzuki T., No. 6,415,012, "X-ray CT scanning apparatus (Gantry-tilt helical filter interpolation, T-HFI)," July 2, 2002.
10 **Taguchi K.**, No. 6,584,166, "X-ray computed tomography apparatus (A method for obtaining $z$-coverage independent of $xy$-field-of-view in cone-beam CT)," June 24, 2003.

11 Aradate H., Saito Y. and **Taguchi K.**, pending, "Methods for scan and reconstruction in 4D-CT," filed in October 30, 2001.
12 Silver M. D. and **Taguchi K.**, pending, "X-ray computed tomography apparatus (A generalized Feldkamp helical reconstruction algorithm)," Filed in March 25, 2002.
13 **Taguchi K.**, pending, "Three dimensional reconstruction algorithm for X-ray apparatus and cone-beam CT (using data reliability-based weighting scheme)," filed in October 24, 2002.
14 Hein I. A. and **Taguchi K.**, pending, "Gantry tilted helical Feldkamp reconstruction algorithm," Filed on October 30, 2002.
15 **Taguchi K.** and Chiang B. S., pending, "Cone-beam helical reconstruction algorithm (using detector row-dependent weighting scheme)," filed on June 16, 2003.
16 **Taguchi K.**, pending, "Radius-in-image dependent detector row filtering for windmill artifact reduction," filed on March 30, 2004.
17 Zamyatin A. A. and **Taguchi K**, pending, "Hybrid convolution algorithm for CT reconstruction," filed in October 2004.
18 Zamyatin A. A., **Taguchi K.**, and M. D. Silver, pending, "Cone-beam data restoration with asymmetrically truncated data," filed in November 2004.
19 **Taguchi K**., pending, "Volumetric computed tomography system for cardiac imaging," filed on March 6, 2005.
20 **Taguchi K.**, pending, "Motion compensated fan-beam reconstruction for computed tomography using derivative backprojection filtering approach," filed on June 15, 2007.

**Japanese Patents**

Holds 20± granted patents and 40± pending ones on nearly all components of CT scanners including image reconstruction algorithms, data correction schemes, scanning techniques, detector configurations, image display methods as well as data archiving and communications schemes, and computer aided diagnosis.

**Extramural Sponsorship (current, pending, previous)**

A. Current

1. 7/1/06-6/30/08, Compensation of the non-periodic heart motion for cardiac CT, 0665431U, American Heart Association beginning grant-in-aid, total direct cost $120,000, Katsuyuki Taguchi, Ph.D., Principal Investigator, 15% effort.
2. 3/1/07-2/29/08, Banding artifact reduction in cardiac CT images using estimated motion, Siemens Research Contract, total direct cost $78,000, Katsuyuki Taguchi, Ph.D., Principal Investigator, 20% effort.
3. 3/1/07-2/29/08, CT simulator, Siemens Research Contract, total direct cost $30,000, Benjamin M. W. Tsui, Ph.D., Co-Investigator, 5% effort.
4. 3/1/07-2/29/08, Statistical reconstruction and multiple-energy in CT, Siemens Research Contract, Benjamin M. W. Tsui, Ph.D., Co-Investigator, 5% effort.

B. Pending

1. November 2007 - October 2010, Energy resolved low-dose x-ray computed tomography imaging using photon counting detector, NIH research grant, total direct cost $750,000, Katsuyuki Taguchi, Ph.D., Principal Investigator, 22% effort.
2. April 2008 - March 2012, Time resolved cardiac CT imaging with patient dose reduction, NIH research grant, total direct cost $1,000,000, Katsuyuki Taguchi, Ph.D., Principal Investigator, 30% effort.
3. April 2008 – September 2009, X-ray micro-CT system with the photon counting detector, NIH small business research grant, total direct cost $, Gamma Medica-Ideas, subcontracted to the Johns Hopkins University, Eric C. Frey, Ph.D., Co-Investigator, 10% effort.
4. July 2008 – June 2009, photon counting x-ray detector for clinical CT system, NIH small business research grant, total direct cost $, DxRay Inc., subcontracted to the Johns Hopkins University, Katsuyuki Taguchi, Ph.D., Principal Investigator, 5% effort.

D. Previous

1. 9/28/1998-3/27/2000, Global Training Grant, total cost, $10,000, Katsuyuki Taguchi, M.Sc., Principal Investigator, 100% effort.
2. 4/1/1998-3/31/2003, Realtime four-dimensional x-ray CT scanner, New Energy and Industrial Technology Development Organization (NEDO) in Japan, total direct cost $1,000,000, Hiroshi Aradate, B.Sc., Co-Investigator, 10% effort.

3. 9/22/05-8/31/08, Simulation Tools for Dynamic CT, R01 EB 001838, NIH research grant, total direct cost $773,442, W. Paul Segars, Ph.D., Co-Investigator, 5% effort.

## EDUCATIONAL ACTIVITIES

**Teaching (Classroom, clinical, CME)**

- Classroom

1. Analytical image reconstruction. Fall, 2005. 2 2.0 hours lectures within Division.
2. Two-dimensional analytical reconstructions. Winter, 2007. 7 2.0 hours lectures within Division.

- CME instruction (course title, dates, role)

1. Principles and characteristics of 16-slice CT: Image acquisition, reconstruction and artifact considerations. Goldcoast, Australia, CT/MRI symposium. July 26-28, 2002, Principal Instructor.

**Mentoring (pre- and post-doctoral) (Advisees, Thesis committees, Training grant participation)**

- Advisees

A. Current Postdoctoral and Research Associates

None

B. Current Research Assistants

1. Zhihui Sun, M.Sc., September 2006 – present, Department of Electrical and Computer Engineering, the Johns Hopkins University
2. Mengxi Zhang, B.Sc., September 2006 – present, Department of Electrical and Computer Engineering, the Johns Hopkins University
3. Mahmoud Ghandi, M.Sc., June 2007 – present, Department of Biomedical Engineering, the Johns Hopkins University

C. Previous Researchers

1. Kyung S. Han, Ph.D., Senior Imaging Scientist, Bio-Imaging Research, Inc., 1994-2002.
2. Ilan Zmora, Ph.D., Senior Imaging Physicist, Bio-Imaging Research, Inc., 1994-2005.
3. Michael D. Silver, Ph.D., Vice president of Research and development, Bio-Imaging Research, Inc., 1998-2005.
4. Ilmar A. Hein, Ph.D., Imaging Scientist, Bio-Imaging Research, Inc., 2000-2005.
5. Beshan S. Chiang, Ph.D., Imaging Scientist, Bio-Imaging Research, Inc., 2001-2005.
6. Satoru Nakanishi, M.Sc., Experienced Researcher, Toshiba Medical Systems Corporation, 2002-2005.
7. Sashin Moghe, Ph.D., Imaging Scientist, Bio-Imaging Research, Inc., 2002-2005.
8. Alexander A. Zamyatin, Ph.D., Staff Mathematician, Bio-Imaging Research, Inc., 2003-2005.
9. David Graff, Ph.D., September 2005 – February 2007, Department of Radiology, the Johns Hopkins University

**Editorial Activities**

- Journal peer review activities

1 Guest Associate Editor, Medical Physics Journal, Institute of Physics, 2004-
2 Reviewer, Medical Physics Journal, Institute of Physics, 1999-
3 Reviewer, IEEE Transactions in Medical Imaging, 2000-
4 Reviewer, Physics in Medicine & Biology (UK), 2000-
5 Reviewer, Journal of Japanese Society of Medical Imaging Technology (Japan), 2002-
6 Reviewer, European Radiology Journal (The Netherlands), 2005-
7 Reviewer, International Journal of Biomedical Imaging, 2005-
8 Reviewer, Zeitschrift for Medizinische Phyisk (Germany), 2007-

## CLINICAL ACTIVITIES

**None**

## ORGANIZATIONAL ACTIVITIES

**Professional Societies** (membership, committees, dates, role)

Membership

Member, Japanese Radiological Society of Technology, 1998- present
Member, Japanese Society of Medical Imaging Technology (JAMIT), 2000- present
Member, American Association of Physicists in Medicine (AAPM), 2002- present
Member, Radiological Society of North America (RSNA), 2003- present
Member, IEEE, 2006- present

**Conference Organizer**

Scientific committee, Fully 3D image reconstruction in Radiology and Nuclear Medicine, 2003-present.
Committee member, The International Society for Optical Engineering (SPIE) Medical Imaging Conference, 2006-present.

**Conference Organizer, Session Chair** (sponsor, date, role)

Session chair, Cardiac CT, The 8th International meeeting on fully 3D image reconstruction in Radiology and Nuclear Medicine, July 6-9, 2005, Salt Lake City, UT.
Session chair, Advanced Reconstruction, The SPIE's International Symposium Medical Imaging 2007, Physics of Medical Imaging, February 17-22, 2007, San Diego, CA
Session chair, Exact reconstruction in CT, The 9th International meeeting on fully 3D image reconstruction in Radiology and Nuclear Medicine, July 9-13, 2007, Lindau, Germany.

**Advisory Committees, Review Groups** (sponsor, date, role)

Siemens AG, Medical Solutions, June 2006 – December 2007, Expert forum on Dual Source CT

**Consultantships** (organization/agency, date, role)

Toshiba Medical Systems Corporation, July 2005 – January 2006, Technical advisor on patent licensing issue

## RECOGNITION

**Awards, Honors** (title, date, description, sponsor)

Global research fellow, Toshiba Corporation, 1998-2000

Certificate of Merit, Radiological Society of North America - 2002
Nominated to Japanese Patent Award - 2003

**Invited Talks, Panels** (title, date, venue, sponsor)

A. Invited/Visiting Lectureships/Professorships

Visiting Senior Imaging Scientitst, Bio-Imaging Research, Inc., June 26, 2002 – April 30, 2005.

B. Invited Lectures at Scientific Meetings

1 Principle of Multi-slice CT (Four dimensional scanner). Presented at Sapporo, Hokkaido, **Japan**, Invited lecture of Hokkaido CT image study meeting, June 10, 2000.
2 The principle of Multi-slice CT (Dreamy four-dimensional scanner). Presented at Tateyama, Toyama, **Japan**, Tateyama seminar held by Chubu division of Japanese society of radiological technology, July 8, 2000.
3 New Reconstruction Algorithm in Toshiba Advanced MultiSlice CT. Presented at Starnberg, **Germany**, 2nd international symposium of Multidetector spiral CT, April 18-20, 2002.
4 Cardiac imaging with 16-slice 0.4-sec CT scanner. Presented at Boston/Cambridge, Massachusetts, **U.S.A.**, the 4th international conference on cardiac spiral CT, July 25-26, 2003.

C. Invited Lectures at Continued Education Courses

1 Principles and characteristics of 16-slice CT: Image acquisition, reconstruction and artifact considerations. Presented at Goldcoast, **Australia**, CT/MRI symposium, July 26-28, 2002.

D. Invited Lectures at Industry Sponsored Meetings

1 Multi-slice CT: The "four dimensional scanner" with the Aspire CI technology. Presented at Vienna, **Austria**, Aspire CI seminar with European Congress of Radiology held by Toshiba Medical Systems Europe, March 9, 1999.
2 The technical aspects of Multi-slice CT: Toward the four-dimensional diagnosis. Presented at Tokyo Big Site, Tokyo, **Japan,** the CT lecture in Garon Millennium held by Toshiba Medical Systems, December 16, 2000.

E. Invited Lectures in Departmental Seminars at Various Universities/institutes

1 The "four-dimensional scanner" with realtime capability. Presented at Tucson, Arizona, **U.S.A.**, Special seminar at Department of Radiology, University of Arizona, February 12, 2000.
2 Image reconstruction in multi-slice CT. Presented at Fukushima, **Japan,** CT seminar at Fukushima Medical University Hospital, May 23, 2001.
3 Image reconstruction and applications of cardiac CT. Presented at Scientific seminar of Department of Electrical Engineering, University of Tsukuba, Ibaraki, **Japan**, February 24, 2006.
4 Toward cardiac 4D imaging with patient dose reduction. Presented at Physics Group, Computed Tomography, Siemens Medical Systems, Forchheim, **Germany**, July 16, 2007.
5 Toward time resolved 4D cardiac CT imaging with patient dose reduction. Presented at Institute of Medical Physics, University of Erlangen, Erlangen, **Germany**, July 17, 2007.
6 Toward time resolved 4D cardiac CT imaging with patient dose reduction. Presented at Institute of Pattern Recognition, University of Erlangen, Erlangen, **Germany**, Cardiac workshop on July 17, 2007.