

6/25/2020



CURRICULUM VITAE

William R. Geiser, M.S.

PRESENT TITLE AND AFFILIATION

Primary Appointment

Senior Medical Physicist, Department of Imaging Physics, Division of Diagnostic Imaging, The University of Texas MD Anderson Cancer Center, Houston, TX

Associate Faculty, Graduate School of Biomedical Sciences, Houston, TX

Dual/Joint/Adjunct Appointment

N/A

CITIZENSHIP

United States

OFFICE ADDRESS

The University of Texas MD Anderson Cancer Center

1515 Holcombe Blvd., Dept. of Imaging Physics

Unit 1352

Unit Number: 1352

Houston, TX 77030

Room Number: CPB5.3350

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EDUCATION

Degree-Granting Education

Southern Oregon State College, Ashland, OR, BS, 1992, Physics

University of Florida, Gainesville, FL, MS, 1996, Medical Physics

Postgraduate Training

N/A

CREDENTIALS

Board Certification

American Board of Radiology, 5/2000

Licensures

Active

Texas Board of Licensure for Professional Medical Physicists, TX, FMP00000508, 9/2001-7/2017

Inactive

N/A

EXPERIENCE/SERVICE

Academic Appointments

Senior Medical Physicist, Department of Imaging Physics, Division of Diagnostic Imaging, The University of Texas MD Anderson Cancer Center, Houston, TX, 12/2001-present

Associate Faculty, Graduate School of Biomedical Sciences, Houston, TX, 1/2002-present

Administrative Appointments/Responsibilities

N/A

Other Appointments/Responsibilities

Electrician's Mate First Class, Navy Nuclear Power Program, Houston, TX, 1/1981-1/1987

Diagnostic Radiological Physicist Graduate Assistant, Shands Hospital at the University of Florida, Gainesville, FL, 8/1993-9/1996

Diagnostic Radiological Physicist, Environmental Health & Safety, University of Florida, Gainesville, FL, 9/1996-12/2001

Endowed Positions

N/A

Consultantships

N/A

Military or Other Governmental Service

Navy, Electrician's Mate First Class, Navy Nuclear Power Program, 8/1981-8/1987

Institutional Committee Activities

N/A

HONORS AND AWARDS

N/A

RESEARCH

Grants and Contracts

Funded

N/A

Pending

N/A

Other

N/A

Completed

N/A

Not Funded

N/A

Protocols

Funded

N/A

Unfunded

N/A

Patents and Technology Licenses

Patents

N/A

Technology Licenses

N/A

Grant Reviewer/Service on Study Sections

N/A

PUBLICATIONS

Peer-Reviewed Original Research Articles

1. Rill LN, Huda W, **Geiser WR**, Gkanatsios NA. Viewbox luminance measurements and their effect on reader performance. *Radiology* 201:820-820, 11/1996.
2. **Geiser WR**, Huda W, Gkanatsios NA. Effect of patient support pads on image quality and dose in fluoroscopy. *Med Phys* 24(3)(3):377-82, 3/1997. PMID: 9089590.
3. Huda W, Steinbach BG, **Geiser WR**, Belden CJ. Optimal technique factors for magnification mammography. *Invest Radiol* 32(7):378-81, 7/1997. PMID: 9228602.
4. Rong XJ, Krugh KT, Shepard SJ, **Geiser WR**. Measurement of focal spot size with slit camera using computed radiography and flat-panel based digital detectors. *Med Phys* 30(7)(7):1768-75, 7/2003. PMID: 12906194.
5. Lai, C.J., Shaw, C., **Geiser, W**, Kappadath, SC., Liu, X., Wang, T., Tu, S. and Altunbas, M. Slot Scanning Versus Ani-Scatter Grid on Digital Mammography-Comparison of Low Contrast Performance Using Contrast-Detail Measurement. *SPIE Physics of Medical Imaging* 5368:734-742, 2004.
6. Lai CJ, Shaw CC, **Geiser W**, Chen L, Arribas E, Stephens T, Davis PL, Ayyar GP, Dogan BE, Nguyen VA, Whitman GJ, Yang WT. Comparison of Slot Scanning Digital Mammography System with Full Field Digital Mammography System. *Med Phys* 35(6):2339 - 2346, 6/2008. PMID: 18649467.
7. Haygood TM, Arribas E, Brennan PC, Atkinson EN, Herndon M, Dieber J, Geiser W, Santiago L, Mills CM, Davis P, Adrada B, Carkaci S, Stephens TW, Whitman GJ. Conspicuity of Microcalcifications on Digital Screening Mammograms Using Varying Degrees of Monitor Zooming. *Acad Radiol* 16(12):1509-1517, 12/2009. PMID: 19896068.
8. Tchou PM, Haygood TM, Atkinson EN, Stephens TW, Davis PL, Arribas EM, Geiser WR, Whitman GJ. Interpretation time of computer-aided detection at screening mammography. *Radiology* 257(1):40-6, 10/2010. e-Pub 8/2010. PMID: 20679448.
9. Geiser WR, Haygood TM, Santiago L, Stephens T, Thames D, Whitman GJ. Challenges in Mammography: Part 1 Artifacts in Digital Mammography. *AJR Am J Roentgenol* 197(12):W1023 - W1030, 12/2011. PMID: 22109316.
10. Liu X, Lai CJ, Whitman GJ, Geiser WR, Shen Y, Yi Y, Shaw CC. Effects of exposure equalization on image signal-to-noise ratios in digital mammography: A simulation study with an anthropomorphic breast phantom. *Med Phys* 38(12):6489, 12/2011. PMID: PMC3247925.
11. Leong DL, Rainford L, Haygood TM, Whitman GJ, Tchou PM, Geiser WR, Carkaci S, Brennan PC. Verification of DICOM GSDF in Complex Backgrounds. *J Digit Imaging* 25(5):662-9, 10/2012. e-Pub 4/2012. PMID: PMC3447097.
12. Kanal KM, Krupinski E, Berns EA, Geiser WR, Karellas A, Mainiero MB, Martin MC, Patel SB, Rubin DL, Shepard JD, Siegel EL, Wolfman JA, Mian TA, Mahoney MC. ACR-AAPM-SIIM Practice Guideline for Determinants of Image Quality in Digital Mammography. *J Digit Imaging* 26(1):10-25, 2/2013. e-Pub 9/2012. PMID: PMC3553374.
13. Carkaci S, Geiser WR, Adrada BE, Marquez C, Whitman GJ. How to establish a cost-effective mobile mammography program. *AJR Am J Roentgenol* 201(5):W691-7, 11/2013. PMID: 24147498.
14. Leong DL, Rainford L, Haygood TM, Whitman GJ, Geiser WR, Adrada BE, Santiago L, Brennan PC. Trend of Contrast Detection Threshold with and without Localization. *J Digit Imaging* 26(6):1099-106, 12/2013. e-Pub 3/2013. PMID: PMC3824922.
15. Muralidhar GS, Markey MK, Bovik AC, Haygood TM, Stephens TW, Geiser WR, Garg N, Adrada BE, Dogan BE, Carkaci S, Khisty R, Whitman GJ. Stereoscopic interpretation of low-dose breast tomosynthesis projection images. *J Digit Imaging* 27(2):248-54, 4/2014. PMID: PMC3948934.
16. Sechopoulos I, Sabol JM, Berglund J, Bolch WE, Brateman L, Christodoulou E, Flynn M, Geiser W, Goodsitt M, Kyle Jones A, Lo JY, Maidment AD, Nishino K, Nosratieh A, Ren B, Paul Segars W, Von Tiedemann M. Radiation dosimetry in digital breast tomosynthesis: Report of AAPM Tomosynthesis Subcommittee Task Group 223. *Med Phys* 41(9):091501, 9/2014. PMID: 25186375.
17. Leong DL, Rainford L, Haygood TM, Whitman GJ, Geiser WR, Stephens TW, Davis PL, Brennan, PC. Radiologist experience effects on contrast detection. *J. Opt. Soc. Am. A* 31(11):2328-2333, 11/2014.

18. Jones AK, Heintz P, Geiser W, Goldman L, Jerjian K, Martin M, Peck D, Pfeiffer D, Ranger N, Yorkston J. Ongoing quality control in digital radiography: Report of AAPM Imaging Physics Committee Task Group 151. *Med Phys* 42(11):6658-70, 11/2015. PMID: 26520756.
19. Le-Petross HT, Hess KR, Knudtson JD, Lane DL, Moseley TW, Geiser WR, Whitman GJ. Effect of Mammography on Marker Clip Migration After Stereotactic-Guided Core Needle Breast Biopsy. *Curr Probl Diagn Radiol*. e-Pub 2/2017. PMID: 28390794.
20. Geiser WR, Einstein SA, Yang WT. Artifacts in Digital Breast Tomosynthesis. *AJR Am J Roentgenol* 211(4):926-932, 10/2018. e-Pub 7/2018. PMID: 30063382.
21. MacLellan CJ, Layman RR, Geiser W, Gress DA, Kyle Jones A. Evaluation of an Automated Grid Artifact Detection System for Quality Control in Digital Mammography. *Med Phys*. e-Pub 5/2019. PMID: 31116445.

Invited Articles

N/A

Editorials

1. J.S. Plaxco, DO, W. Geiser, MS, W. Yang, MBBS, MD, FRCR. Effect of integrating 3D-mammography (digital breast tomosynthesis) with 2D-mammography on radiologists' true-positive and false-positive detection in a population breast screening trial. *Breast Diseases: A Year Book Quarterly* 26(1):45-47, 1/2015.

Other Articles

N/A

Abstracts

1. Rong J, Krugh K, Shepard S, **Geiser WR**. Measurement of Focal Spot Size with Slit Camera Using Computed Radiography and Flat Panel Based Digital Detectors. The 44th Annual AAPM Meeting, Montreal Canada, 2002.
2. Lai C, Shaw C, **Geiser WR**, Liu X, Kappadath S, Altunbas M, Tu S, Wang T, Whitman G, Dempsey P. A Contrast-Detail Phantom Study to Compare a Slot Scanning Digital System with An Asi/Csl Flat Panel Based System. The 46th Annual AAPM Meeting, Pittsburgh, PA, 2004.
3. Lai C, Shaw C, Whitman G, Arribas E, Nguyen V, Stephens T, **Geiser WR**, Dempsey P. Comparison of Asi/Csl Flat Panel and Slot Scanning Digital Mammography Systems for Detection of Simulated Microcalcifications: An ROC Study. The 46th Annual AAPM Meeting, Pittsburgh, PA, 2004.
4. Liu H, **Geiser WR**, Willis C. Effects of Prepatient Filtration on Contrast, Scatter and Dose in CR Chest Exams: A Phantom Study. The 47th Annual AAPM Meeting, Seattle WA, 2005.
5. Ayer GP, Whitman G, **Geiser WR**, Sprinkle-Vincent S, Sullivan C, Stephens TW. Film-Screen and Digital Mammography Artifacts. American Roentgen Ray Society Annual Meeting, New Orleans, LA, 2005.
6. Shaw C., **Geiser W**. Mammography QA Workshop I & II. 48th Annual AAPM Meeting, 2006.
7. Santiago L, Haygood TM, Whitman GJ, Atkinson EN, **Geiser WR**. Technical Recall in Film Screen and Digital Screening Mammography. RSNA, 11/2007.
8. Lai C, You Z, Zhong Y, Shen Y, Chen L, Liu X, Han T, Ge S, Yi Y, **Geiser W**, Whitman G, Yang W, Shaw C. Effects of Exposure Level and Anatomical Background On Detection of Simulated Microcalcifications in Digital Mammography. 51st Annual AAPM Meeting, 6/2009.
9. Geiser W, Reeve D. Breast Imaging QA. *Medical Physics* 40(6):528, 6/2013.

Book Chapters

1. Geiser, WR. Artifacts in digital mammography. In: *Digital mammography: A Practical Approach*, 1st. Ed(s) GJ Whitman, TM Haygood. Cambridge University Press: New York, 71-84, 2013. PMID: 978-0-521-76372-1.

Books (edited and written)

N/A

Letters to the Editor

N/A

Manuals, Teaching Aids, Other Teaching Publications

1. **Geiser W**, Haygood T, Santiago L, Stephens T, Whitman W, Thames D. Artifacts in Digital Mammography: What the Radiologist Needs to Know. AJR: USA, 4/2009.
2. Keenan MA, Geiser WR, Sepulveda KA, Slanetz PJ, Brown KL, Martin MC, Sechopoulos I, Krupinski E, Morgan MB, Siegel EL. ACR-AAPM-SIIM Practice Parameters for the Determinants of Image Quality in Digital Mammography. American College of Radiology: Reston, 10/2017.

Other Publications

N/A

EDITORIAL AND REVIEW ACTIVITIES**Editor/Service on Editorial Board(s)**

N/A

Member of Editorial Review Board

N/A

Journal Reviewer

Reviewer, Journal of Applied Clinical Medical Physics, American College of Medical Physics, Reviewer for articles related to breast imaging., 2010-present

Reviewer, Medical Physics, Review Manuscripts when requested by the editor or associate editors of Medical Physics, 2012-present

Reviewer, American Journal of Roentgenology, American Roentgen Ray Society, 2016-present

Other Editorial and Review Activities

N/A

TEACHING**Teaching Within Current Institution - The University of Texas MD Anderson Cancer Center****Formal Teaching****Courses Taught**

Lecturer, Medical Physics II, Course Number: GS02-0103, Course Hours: 3
Spring, 1/2012-1/2014

Training Programs

N/A

Other Formal Teaching

Instructor, Introductory Diagnostic Imaging Rotation, Course Number: GS02-0174,
Course Hours: 3
8/2002-present

Supervisory Teaching**Committees****Advisory Committees**

N/A

Supervisory Committees

N/A

Examining Committees

N/A

Direct Supervision**Undergraduate and Allied Health Students**

N/A

Medical Students

N/A

Graduate Students

N/A

Postdoctoral Research Fellows

N/A

Clinical Residents and Fellows

N/A

Other Supervisory Teaching

N/A

Teaching Outside Current Institution

Formal Teaching

Courses Taught

Radiation Control and Radiological Services Radiation Safety Short Course, University of Florida

Quarterly, 1/1997-1/2001

Training Programs

N/A

Other Formal Teaching

N/A

Supervisory Teaching

Committees

Advisory Committees

N/A

Supervisory Committees

N/A

Examining Committees

N/A

Direct Supervision

Undergraduate and Allied Health Students

N/A

Medical Students

N/A

Graduate Students

N/A

Postdoctoral Research Fellows

N/A

Clinical Residents and Fellows

N/A

Other Supervisory Teaching

N/A

CONFERENCES AND SYMPOSIA

Organization of Conferences/Symposia (Include chairing session)

ACMP, Virginia Beach, VA, Chair, 4/2009

ACMP, San Antonio, TX, Chair, 5/2010

ACMP, Chattanooga, TN, Chair, 4/2011

AAPM, Dallas, TX, Chair, 3/2012

AAPM, Phoenix, AZ, Chair, 3/2013

AAPM, Indianapolis, IN, Moderator, 8/2013

AAPM, Denver, CO, Chair, 3/2014

Presentations at National or International Conferences

Invited

Geiser WR. Annual QC Testing of the Hologic/LORAD Full Field Digital Mammography System (TH-D-230C-01, TH-D-230C-02), 48th Annual AAPM Meeting, Orlando, FL, 7/31/2006

Geiser WR. Annual and Acceptance Testing of Digital Mammography Equipment, ACMP 2008, Seattle, WA, 5/3/2008

Geiser WR. Digital Mammography: The Impact on PACS, Workflow, and Equipment Purchase Considerations, SIIM 2008, Seattle, WA, 5/17/2008

Geiser W, Haygood T, Santiago L, Stephens T, Whitman G, Thames D. Artifacts in Digital Mammography, ACMP, Virginia Beach, VA, 5/2/2009

Geiser, WR. Digital Detectors in Digital Mammography, Health Promotion Board, Singapore, Singapore, Singapore, 4/17/2010

Geiser, WR. Quality Control for the Technologist in Digital Mammography, Health Promotion Board, Singapore, Singapore, Singapore, 4/17/2010

Geiser, WR. Conversion from Fim Screen Mammography to Digital Mammography, ACMP, San Antonio, TX, 5/22/2010

Geiser WR. Breast Specimen Radiography, ACMP, Chattanooga, TN, 4/30/2011

Geiser WR. The Breast Imaging Center of Excellence, AAPM, Dallas, TX, 3/18/2012

Geiser, WR. Breast Tomosynthesis from the Ground Up, AAPM, Phoenix, AZ, 3/17/2013

Geiser, WR. The ACR Random On Site Survey Program, AAPM, Phoenix, AZ, 3/19/2013

Geiser WR, Reeve D. BICOE – Stereotactic Breast Biopsy and Breast Ultrasound Accreditation, AAPM 2014 Spring Clinical, Denver, CO, 3/16/2014

Geiser WR. Stereotactic Breast Biopsy and Breast Ultrasound Accreditation, AAPM 2015 Spring Clinical, St. Louis, MO, 3/8/2015

Geiser WR. Acceptance Testing and ACR Accreditation of Stereotactic Breast Biopsy Systems, 2017 AAPM Annual Meeting, Denver, CO, 8/2/2017

Geiser WR. Artifacts in Digital Breast Tomosynthesis and Synthesized 2D Imaging, AAPM, Nashville, TN, 8/1/2018

Other, Including Scientific Exhibitions

Image Quality and Patient Doses in Pediatric Fluoroscopy (WE-D1-08-D), Annual AAPM Meeting, Boston, MA, 1/1/1995

Geiser, WR, Haygood, T, Whitman, G. Artifacts in Digital Mammography, Health Promotion Board, Singapore, Singapore, Singapore, 4/17/2010

W Geiser. Breast Imaging QA: Implementation of a New Breast Tomosynthesis Program: A Clinical Medical Physicists Perspective, AAPM 2013 Annual Meeting, Indianapolis, IN, 8/7/2013

A. Walz-Flannigan, W Geiser. The Art of the Image. The Identification and Remediation of Image Artifacts in Projection Radiography., AAPM 2013 Annual Meeting, Indianapolis, IN, 8/7/2013

Geiser WR. Multi Modality Stereotactic Breast Imaging Systems, AAPM, Las Vegas, NV, 4/10/2018

Seminar Invitations from Other Institutions

N/A

Lectureships and Visiting Professorships

N/A

Other Presentations at State and Local Conferences

Everything you wanted to know about digital mammography but were afraid to ask, FastCE State Mammography, Humble, TX, 5/2005

ACR Accreditation of Stereotactic Breast Biopsy Units, FastCE State Mammography Seminar, Humble, TX, 5/2006

Geiser W, Haygood T, Santiago L, Stephens T, Whitman G, Thames D. Artifacts in Digital Mammography, Artifacts In Digital Mammography: What the Physicist Needs to Know, Southwest Chapter of the AAPM, San Antonio, TX, 3/27/2009

Geiser, WR. Breast Tomosynthesis Update, Florida AAPM Spring Meeting, Florida Chapter AAPM, Orlando, FL, 5/1/2015

PROFESSIONAL MEMBERSHIPS/ACTIVITIES**Professional Society Activities, with Offices Held****National and International**

American Association of Physicists in Medicine, Houston, TX

Member, 1/1996-present

Member Task Group 223, 8/2012-12/2017

Member Tomosynthesis Subcommittee, 8/2012-present

Member IPC, 1/2013-12/2018

Chairman Mammography Subcommittee, 3/2013-12/2018

American College of Radiology

Member, 1/2006-present

Member Committee on Practice Parameters and Technical Standards - Medical Physics, 6/2015-present

Member Mammography Physics Subcommittee, 7/2017-present

Chair of Committee to write new Technical Standard for Stereo Guided Breast Biopsy, 11/2018-present

Society of Breast Imaging

Member, 12/2006-present

American College of Medical Physics, College Park, MD

Member, 9/2009-8/2011

National Mammography Quality Assurance Advisory Committee, Washington DC

Member, 2/2013-present

Local/State

Southwest Chapter of the American Association of Physicists in Medicine, Houston, TX

Member, 1/2002-present

UNIQUE ACTIVITIES

N/A

DATE OF LAST CV UPDATE

3/5/2019