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EHSAN SAMEI, PROFESSOR OF RADIOLOGY, MEDICAL PHYSICS GRADUATE PROGRAM AND BIOMEDICAL ENGINEERING

Contact Info:

Office Location: 2424 Erwin Road, Suite 302
 Email Address:  
 Web Page: <http://railabs.duhs.duke.edu>



Education:

Ph.D., University of Michigan, 1997
 M.E., University of Michigan, 1995

Specialties:

Medical Imaging

Awards, Honors, and Distinctions

- Award for Excellence, Best Diagnostic Imaging Paper, American College of Medical Physics, 2001
- Honorable Mention for Paper, SPIE Medical Imaging Symposium, 2001
- Cum Laude for Scientific Exhibit, Radiological Society of North America Meeting, Chicago, IL, December 2000
- Honorable Mention for Poster, Society of Nuclear Medicine Conference, Toronto, Canada, June 1998
- 3rd Prize, Young Investigator Competition, AAPM Annual Meeting, Milwaukee, WI, June 1997
- 1st Place, Siemens/Norman Horowitz Award for Best Paper, Young Investigator Competition of AAPM Great Lakes Chapter Meeting, April 1997
- Best Student Presentation, Health Physics Society Great Lakes Chapter Meeting, 1995
- Best Student Presentation, Health Physics Society Annual Meeting

Representative Publications (More Publications)

AS Chawla, RS Saunders, S Singh, JY Lo, E Samei, *Towards optimized acquisition scheme for multiprojection correlation imaging of breast cancer.*, Academic radiology, United States, vol. 16 no. 4 (April, 2009), pp. 456-63 [abs].

BJ Pollard, E Samei, AS Chawla, J Baker, S Ghate, C Kim, MS Soo, N Hashimoto, *The influence of increased ambient lighting on mass detection in mammograms.*, Academic radiology, United States, vol. 16 no. 3 (March, 2009), pp. 299-304 [abs].

X Li, E Samei, *Comparison of patient size-based methods for estimating quantum noise in CT images of the lung.*, Medical physics, United States, vol. 36 no. 2 (February, 2009), pp. 541-6 [abs].

C Castella, MP Eckstein, CK Abbey, K Kinkel, FR Verdun, RS Saunders, E Samei, FO Bochud, *Mass detection on mammograms: influence of signal shape uncertainty on human and model observers.*, Journal of the Optical Society of America. A, Optics, image science, and vision, United States, vol. 26 no. 2 (February, 2009), pp. 425-36 [abs].

X Li, E Samei, DM Delong, RP Jones, AM Gaca, CL Hollingsworth, CM Maxfield, CW Carrico, DP Frush, *Three-dimensional simulation of lung nodules for paediatric multi-detector array CT.*, The British journal of radiology (January, 2009) [abs].

X Li, E Samei, WP Segars, GM Sturgeon, JG Colsher, DP Frush, *Patient-specific dose estimation for pediatric chest CT.*, Medical physics, United States, vol. 35 no. 12 (December, 2008), pp. 5821-8 [abs].

E Samei, JY Lo, TT Yoshizumi, JL Jesneck, JT Dobbins, CE Floyd, HP McAdams, CE Ravin, *Comparative scatter and dose performance of slot-scan and full-field digital chest radiography systems.*, Radiology, United States, vol. 235 no. 3 (June, 2005), pp. 940-9 [abs].

RS Saunders, E Samei, JL Jesneck, JY Lo, *Physical characterization of a prototype selenium-based full field digital mammography detector.*, Medical physics, United States, vol. 32 no. 2 (February, 2005), pp. 588-99 [abs].

E Samei, A Rowberg, E Avraham, C Cornelius, *Toward clinically relevant standardization of image quality.*, Journal of digital imaging : the official journal of the Society for Computer Applications in Radiology, United States, vol. 17 no. 4 (December, 2004), pp. 271-8 [abs].

E Samei, SL Wright, *Luminance and contrast performance of liquid crystal displays for mammographic applications.*, Technology in cancer research & treatment, United States, vol. 3 no. 5 (October, 2004), pp. 429-36 [abs].

E Samei, RS Saunders, JY Lo, JT Dobbins, JL Jesneck, CE Floyd, CE Ravin, *Fundamental imaging characteristics of a slot-scan digital chest radiographic system.*, Medical physics, United States, vol. 31 no. 9 (September, 2004), pp. 2687-98 [abs].

U Neitzel, S Günther-Kohfahl, G Borasi, E Samei, *Determination of the detective quantum efficiency of a digital x-ray detector: comparison of three evaluations using a common image data set.*, Medical physics, United States, vol. 31 no. 8 (August, 2004), pp. 2205-11 [abs].

H Jung, HJ Kim, WS Kang, SK Yoo, K Fujioka, M Hasegawa, E Samei, *Assessment of flat panel LCD primary class display performance based on AAPM TG 18 acceptance protocol.*, Medical physics, United States, vol. 31 no. 7 (July, 2004), pp. 2155-64 [abs].

RS Saunders, E Samei, C Hoeschen, *Impact of resolution and noise characteristics of digital radiographic detectors on the detectability of lung nodules.*, Medical physics, United States, vol. 31 no. 6 (June, 2004), pp. 1603-13 [abs].

RL McKinley, MP Tornai, E Samei, ML Bradshaw, *Simulation study of a quasi-monochromatic beam for x-ray computed mamotomography.*, Medical physics, United States, vol. 31 no. 4 (April, 2004), pp. 800-13 [abs].

RS Saunders, E Samei, *A method for modifying the image quality parameters of digital radiographic images.*, Medical physics, United States, vol. 30 no. 11 (November, 2003), pp. 3006-17 [abs].

SR Turner, E Samei, BS Hertzberg, DM DeLong, R Vargas-Voracek, A Singer, CH Maynor, MA Kliewer, *Sonography of fetal choroid plexus cysts: detection depends on cyst size and gestational age.*, Journal of ultrasound in medicine : official journal of the American Institute of Ultrasound in Medicine, United States, vol. 22 no. 11 (November, 2003), pp. 1219-27 [abs].

E Samei, *Image quality in two phosphor-based flat panel digital radiographic detectors.*, Medical physics, United States, vol. 30 no. 7 (July, 2003), pp. 1747-57 [abs].

E Samei, MJ Flynn, E Peterson, WR Eyler, *Subtle lung nodules: influence of local anatomic variations on detection.*, Radiology, United States, vol. 228 no. 1 (July, 2003), pp. 76-84 [abs].

E Samei, MJ Flynn, *An experimental comparison of detector performance for direct and indirect digital radiography systems.*, Medical physics, United States, vol. 30 no. 4 (April, 2003), pp. 608-22 [abs].

E Samei, JG Hill, GD Frey, WM Southgate, E Mah, D Delong, *Evaluation of a flat panel digital radiographic system for low-dose portable imaging of neonates.*, Medical physics, United States, vol. 30 no. 4 (April, 2003), pp. 601-7 [abs].

JT Dobbins, E Samei, HG Chotas, RJ Warp, AH Baydush, CE Floyd, CE Ravin, *Chest radiography: optimization of X-ray spectrum for cesium iodide-amorphous silicon flat-panel detector.*, Radiology, United States, vol. 226 no. 1 (January, 2003), pp. 221-30 [abs].

E Samei, MJ Flynn, *An experimental comparison of detector performance for computed radiography systems.*, Medical physics, United States, vol. 29 no. 4 (April, 2002), pp. 447-59 [abs].

E Samei, JA Seibert, CE Willis, MJ Flynn, E Mah, KL Junck, *Performance evaluation of computed radiography systems.*, Medical physics, United States, vol. 28 no. 3 (March, 2001), pp. 361-71 [abs].

E Mah, E Samei, DJ Peck, *Evaluation of a quality control phantom for digital chest radiography.*, Journal of applied clinical medical physics / American College of Medical Physics, United States, vol. 2 no. 2 (2001), pp. 90-101 [abs].

MT Ryan, KM Spicer, D Frei-Lahr, E Samei, GD Frey, H Hargrove, G Bloodworth, *Health physics consequences of out-patient treatment of non-Hodgkin's lymphoma with 131I-radiolabeled anti-B1 antibody.*, Health physics, UNITED STATES, vol. 79 no. 5 Suppl (November, 2000), pp. S52-5 [abs].

KJ Kearfott, S Han, EC Wagner, E Samei, CK Wang, *Numerical simulation of a TLD pulsed laser-heating scheme for determination of shallow dose and deep dose in low-LET radiation fields.*, Applied radiation and isotopes : including data, instrumentation and methods for use in agriculture, industry and medicine, England, vol. 52 no. 6 (June, 2000), pp. 1419-29 [abs].

E Samei, MJ Flynn, WR Eyler, *Detection of subtle lung nodules: relative influence of quantum and anatomic noise on chest radiographs.*, Radiology, UNITED STATES, vol. 213 no. 3 (December, 1999), pp. 727-34 [abs].

MJ Flynn, E Samei, *Experimental comparison of noise and resolution for 2k and 4k storage phosphor radiography systems.*, Medical physics, UNITED STATES, vol. 26 no. 8 (August, 1999), pp. 1612-23 [abs].

E Samei, MJ Flynn, DA Reimann, *A method for measuring the presampled MTF of digital radiographic systems using an edge test device.*, Medical physics, UNITED STATES, vol. 25 no. 1

(January, 1998), pp. 102-13 [abs].

E Samei, MJ Flynn, WR Eyler, *Simulation of subtle lung nodules in projection chest radiography.*, Radiology, UNITED STATES, vol. 202 no. 1 (January, 1997), pp. 117-24 [abs].

E Samei, KJ Kearfott, *A limited bibliography of the Federal Government-funded human radiation experiments.*, Health physics, UNITED STATES, vol. 69 no. 6 (December, 1995), pp. 885-91 [abs].

KJ Kearfott, S Han, KL McMahan, E Samei, *Sensitivity of a mixed field dosimetry algorithm to uncertainties in thermoluminescent element readings.*, Health physics, UNITED STATES, vol. 68 no. 3 (March, 1995), pp. 340-9 [abs].

E Samei, *AAPM/RSNA physics tutorial for residents: technological and psychophysical considerations for digital mammographic displays.*, Radiographics : a review publication of the Radiological Society of North America, Inc, United States, vol. 25 no. 2 , pp. 491-501 [abs].

E Samei, JA Seibert, K Andriole, A Badano, J Crawford, B Reiner, MJ Flynn, P Chang, *AAPM/RSNA tutorial on equipment selection: PACS equipment overview: general guidelines for purchasing and acceptance testing of PACS equipment.*, Radiographics : a review publication of the Radiological Society of North America, Inc, United States, vol. 24 no. 1 , pp. 313-34 [abs].

GH Beute, MJ Flynn, WR Eyler, E Samei, DL Spizarny, CJ Zylak, *Chest radiographic image quality: comparison of asymmetric screen-film, digital storage phosphor, and digital selenium drum systems--preliminary study.*, Radiographics : a review publication of the Radiological Society of North America, Inc, UNITED STATES, vol. 18 no. 3 , pp. 745-54 [abs].

Biomedical Engineering Department
Pratt School of Engineering | Duke University
Room 136 Hudson Hall • Box 90281 • Durham, NC 27708-0281
Phone: (919) 660-5131 • Fax: (919) 684-4488