

ABDULRAHMAN ALFURAIH

Department of Radiological Sciences
College of Applied Medical Sciences
King Saud University
PO.Box 10219
Riyadh 11433
Saudi Arabia

email: aalfuraih@ksu.edu.sa Tel: 014693576

EDUCATION

University of Surrey, Guildford, Surrey, UK
PhD in Physics/ Medical Physics **2009**
Thesis "Exploring the Use of High Energy Medical Linear Accelerator
in Boron Neutron Capture Therapy"

George Washington University, Washington D.C , USA
M.Sc. Electrical Engineering/Biomedical Engineering **2002**

King Saud University, Riyadh, Saudi Arabia
B.Sc. Radiological Sciences **1998**

PROFESSIONAL EXPERIENCE

King Saud University, Riyadh
Head of Department **2011-**
Department of Radiological Sciences

University of Surrey, UK **2011-**
Visiting Senior Fellow
Department of Physics

King Saud University, Riyadh
Assistant Professor **2009-**
Medical Physics, Department of Radiological Sciences

University of Surrey, UK **2009-2010**
Visiting Academic Researcher
Department of Physics

University of Surrey, UK**2004-2008**

Teaching Assistant

Radiation Physics laboratory; supervision and demonstrating for M.Sc. students.

University of Surrey, UK**2005-2010**

Dissertation Co-Supervisor

Supervision of projects leading to M.Sc. in Medical Physics

King Saud University**1998-2000**

Demonstrator/Teaching Assistant

PUBLICATIONS

- 1- K. S. Alzimami, S. A. Sassi, **A. A. Alfuraih**, M. A. Alkhorayef and NM Spyrou. Optimized Energy Window Selection for 89Zr PET Imaging Using Monte Carlo Simulation, Transactions- American Nuclear Society Meeting, Vol 103, pages 1111-1112, Las Vegas, USA, November 2010.
- 2- Ma A, Alghamdi A, Alsaif A, **Alfuraih A** , Validation of Homogenous Breast Tissue Assumption in MGD Calculations Using A Realistic Computational Breast Phantom, Proceedings of The Joint International Conference on Supercomputing in Nuclear Application and Monte Carlo (SNA+MC2010), Tokyo, Japan.2010, Article no. 10335.
- 3-Investigation the Potential Use of LaBr3:Ce Scintillators for Scintimammography Imaging. K. Alzimami, S. Sassi, **A. Alfuraih** and NM Spyrou, In Press, Corrected Proof, Nuclear Instruments and Methods in Physics Research Section A. doi:10.1016/j.nima.2010.06.189

- 4-Investigation of the possibility of improving spatial resolution in SPECT with the combination of LaBr₃:Ce-based detector and 3D-OSEM reconstruction algorithms. Khalid S. Alzimami, Salem A. Sassi, Abdulrahman **A. Alfuraih**, Nicholas M. Spyrou , in Press, Corrected Proof, Nuclear Instruments and Methods in Physics Research Section A. doi:10.1016/j.nima.2010.06.191
- 5- **A. Alfuraih**, M. P. W. Chin, N. M. Spyrou ,Measurements of the photonuclear neutron yield of 15 MV medical linear accelerator. *Journal of Radioanalytical and Nuclear Chemistry*, Vol. 278, No.3, pages 681-684 (2008)
- 6- **Alfuraih, A.** Chin, M.P.W. Spyrou, N.M. Boron Neutron Capture Therapy: Medical Linear Accelerator Versus Reactor Beams, TRANSACTIONS- AMERICAN NUCLEAR SOCIETY,2007, VOL 97, pages 307-308
- 7- Ma A, Awotwi-Pratt J, Alghamdi A, **Alfuraih A** and Spyrou NM (2008) Monte Carlo study of photoneutron production in the Varian Clinac 2100C linac. *Journal of Radioanalytical and Nuclear Chemistry* **276** 119-123
- 8- Spyrou NM, **Alfuraih A** and Ma A (2006) Monte Carlo simulations for boron neutron capture therapy with linacs. *American Nuclear Society Transactions* **95** 434-435
- 9- **Alfuraih A**, Ma A, Awotwi-Pratt J and Spyrou NM (2006) BNCT with linac, feasibility study. *Proceedings of 12th International Congress on Boron Neutron Capture Therapy* 339-341
- 10- **Alfuraih A**, Alghamdi A, Ma A and NM Spyrou (2005) Prospect of using the photoneutron beam component from high energy linacs in BNCT, a Monte Carlo simulation. *Proceedings of EUROCON 2005 – The International Conference on Computer as a Tool* **2** 1703–1705

CONFERENCE PRESENTATIONS:

Spyrou NM, **Alfuraih A** and Ma A (2006) Monte Carlo simulations for boron neutron capture therapy with linacs. American Nuclear Society Winter Meeting 2006 and Nuclear Technology Expo, Albuquerque, New Mexico, USA, 12th–16th November 2006 (oral)

Alfuraih A, Ma A, Awotwi-Pratt J and Spyrou NM (2006) BNCT with linac, feasibility study. 12th International Congress on Neutron Capture Therapy, Takamatsu, Kagawa, Japan, 9th–13th October 2006 (oral)

Ma A, Awotwi-Pratt J, Alghamdi A, **Alfuraih A** and Spyrou NM (2006) Monte Carlo study of photoneutron production in the Varian Clinac 2100C linac. 7th International Conference on Methods and Applications of Radioanalytical Chemistry, Kona, Hawaii, USA, 3rd–7th April 2006 (poster)

Alfuraih A, Ma A, Alghamdi A and Spyrou NM (2006) Prospects of high energy medical linear accelerators in BNCT, a Monte Carlo simulation using voxelised phantom. 7th International Conference on Methods and Applications of Radioanalytical Chemistry, Kona, Hawaii, USA, 3rd–7th April 2006 (poster)

Alfuraih A, Alghamdi A, Ma A and Spyrou NM (2005) Prospect of using the photoneutron beam component from high energy linacs in BNCT, a Monte Carlo simulation. EUROCON 2005 – The International Conference on “Computer as a Tool”, Belgrade, Serbia and Montenegro, 21st–24th November 2005 (oral)

Alghamdi A, Ma A, Marouli M, Alkhraif M, Prekas G, **Alfuraih A** and Spyrou NM (2005) Simulation of high resolution eye phantom for proton therapy. The 8th International Conference on Nuclear Analytical Methods in the Life Sciences, Rio de Janeiro, Brazil, 17th–22nd April, 2005 (oral)

Alfuhraih A, Ma A and Spyrou NM (2005) Boron neutron capture therapy using medical linear accelerator. The 8th International Conference on Nuclear Analytical Methods in the Life Sciences, Rio de Janeiro, Brazil, 17th–22nd April, 2005 (oral)

SUPERVISED MSC MEDICAL PHYSICS DISSERTATION

1. Eleni A. Spanachi Measurement of UV Spectra and Transmittance Through Clothing for Vitamin D Production, University of Surrey 2010 Co-supervised with Professor Nicholas M. Spyrou.
2. Abdullah A. AbuHaimed, Suitability of INAA and PIXE for the elemental analysis of hair and nail samples in breast cancer, University of Surrey 2010 Co-supervised with Professor Nicholas M. Spyrou.
3. Eryfyli Varvareli, Investigation of bone mineral density in paediatric inflammatory bowel disease, University of Surrey 2010 Co-supervised with Professor Nicholas M. Spyrou.
4. Kouroukla E, Boron Neutron Capture Therapy Using a High Energy Linear Accelerator, Requirements , Calculations, University of Surrey 2009 Co-supervised with Professor Nicholas M. Spyrou.
5. Grimwood A, Neutron Dose Survey of a Radiotherapy Maze and Surrounding Areas. University of Surrey, 2007, Co-supervised with Professor Nicholas M. Spyrou.
6. Burnley JCL, Neutron Measurements from Medical Linear Accelerators, University of Surrey, 2007, Co-supervised with Professor Nicholas M. Spyrou.
7. Critchley SJA, Neutron Measurements in LINAC Environments, University of Surrey 2006 Co-supervised with Professor Nicholas M. Spyrou.

8. Green D, Boron Neutron Capture Therapy of the Brain : a Monte Carlo Simulation, University of Surrey, 2005, Co-supervised with Professor Nicholas M. Spyrou.

LANGUAGES

Arabic - native
English - fluent

MEMBERSHIPS

American Nuclear Society
IEEE
Saudi Medical Physics Society