Zahra Siavashpour, Ph.D .

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EDUCATION

Ph.D In Medical Radiation Engineering (Honor)
Shahid Beheshti University
2011-2016

M.Sc In Medical Radiation Engineering (Honor)
Shiraz University
2007-2010

Bachelor of Science In Atomic Physics
Shiraz University
2003-2007

PUBLICATIONS

92	5	15	24	1
Citations	h-Index	Article	Conference	Book

Journal Articles

1. Mohammadi R, Reiazi R, Jaberi R, Mahdavi SR, Siavashpour Z, Jahani L, Soleimani Meigooni A. Evaluation of deformable image registration algorithm for determination of accumulated dose for brachytherapy of cervical cancer patients, Journal of contemporary brachytherapy, 2019, (In press).

2. Hoseini Aghdam SR, Siavashpour Z, Mahdavi SR, Aghamiri SMR. Evaluating the Radiation Contamination Dose around a High Dose Per Pulse Intraoperative Radiotherapy Accelerators, A Monte Carlo Study. Journal of Radiotherapy in Practice, 2019, (In press).

3. Siavashpour Z, Jaberi R, Aghamiri MR, Dehghan Manshadi HR, Ghaderi R, Kirisits Ch. Artificial Neural Network Based GYN Image-Guided Adaptive BrachytherapyTreatment Planning Correction of Intra-Fractional OARs Dose Variation, Journal of contemporary brachytherapy, 2017, Volume 9, Number 6, Pages 508-518.

4. Siavashpour Z, Aghamiri MR, Jaberi R, Dehghan Manshadi HR, Sedaghat M, Kirisits Ch. Evaluating the utility of '3D Slicer' as a fast andindependenttool to assess intra-fractional organ

dose variations in GYN brachytherapy. Brachytherapy, 2016, Volume 15, Issue 4, Pages 514–523, 2016.

5. Siavashpour Z, Aghamiri MR, Jaberi R, Dehghan Manshadi HR, Zare Akha N, Kirisits Ch, Ghaderi R. Optimum Organ Volume Ranges for Organs at Risk Dose in Cervical Cancer Intracavitary Brachytherapy. Journal of Contemporary Brachytherapy, 2016, Volume 8, Number 2, Pages 135–142, 2016.

6. Siavashpour Z, Aghamiri MR, Jaberi R, Dehghan Manshadi HR, Zare Akha N, Kirisits Ch. A comparison of organs at risk dose in GYN intracavitary brachytherapy according to different tandem length and bladder volume. Journal of Applied Clinical Medical Physics (JACMP). 2016, Volume 17, Number 3, 2016.

7. S. Sina, R. Faghihi, A. Soleimani Meigooni, Z. Siavashpour, M.A. Mosleh-Shirazi. Developing a treatment planning software based on TG-43U1 formalism for Cs-137 LDR brachytherapy. Iranian Red Crescent Medical Journal (IRCMJ). 2013, 15(8): 712-7.

8. M. Khosravi, D. Shahbazi-Gahrouei, K. Jabbari, M. Nasri-Nasrabadi, M. Baradaran-Ghahfarokhi, Z. Siavashpour, R. Gheisari, B. Amiri. Photoneutron contamination from an 18MV saturne medical linear accelerator in the treatment room. Radiation Protection Dosimetry (RPD). 2013:1–8.

9. E. Rahimi, R. Faghihi, M. Baradaran‐Ghahfarokhi, A. Alavaian‐Ghavanini, H.R. Baradaran‐Ghahfarokhi, Z. Siavashpour, A. Farshadi, F. Rafie. Effects of gamma irradiation on microbial load and quality characteristics of veal. Advanced Biomedical Research. 2013; 2(1): 90-4.

10. M.A. Mosleh Shirazi, R. Faghihi, Z. Siavashpour*, H.A. Nedaie, S. Mehdizadeh, S. Sina. Independent Evaluation of an In-house Brachytherapy Treatment Planning System using Simulation, Measurement and Calculation Methods. Journal of Applied Clinical Medical Physics (JACMP). 2012; 13(2): 103-112.

11. Z. Siavashpour, S. Mehdizadeh and M. Baradaran-Ghahfarokhi. Radiation protection principles observance in mammography divisions in Shiraz. Journal of Research in Medical Science. Iran Red Cres Med J.2012;14(12):840-1.

12. Baradaran-Ghahfarokhi M. Faghihi R, Karami M, Siavashpour Z, Owji H. The effects of internal wall covering materials on hazards of indoor Radon concentrations in houses of Iran. Iran Red Crescent Med J 2011; 13(9):637-640.

13. Baradaran Ghahfarakhi M, Mosleh-Shirazi MA, Faghihi R, Bagheri MH, Hadad K, Alavian-Ghavanini A, Siavashpour Z, Kasayi H. Calculation of Changes in Radiation Exposure due to Prostate Displacement in Permanent Prostate Brachytherapy. Middle East Journal of Cancer 2010; 1(3): 123-128.

14. Rahimi E, Faghihi R, BaradaranGhahfarakhi M, Alavaian Ghavanini A, Farshadi A, Siavashpour Z, Rahimi M, Baradaran H, Rafie F. “The Effect of Gamma Irradiation on the Microbial Quality of Meat”, Food Technology and Nutrition, fall 2010, vol. 7, no. 4.

15. Mortazavi SMJ, Mosleh-Shirazi MA, Baradaran-Ghahfarokhi M., Siavashpour Z, Farshadi A, Ghafouri M, And Shahvar A. Production of a Datolite-Based Heavy Concrete for Shielding Nuclear Reactors and Megavoltage Radiotherapy Rooms, Iranian Journal of Radiation Research (IJRR), 2010; 8 (1): 11-15.

Conference Articles

1. Hosseini Aghdam SR, Mahdavi SR, Akbari ME, Siavashpour Z, Nafisi N, Mirzaei HR, Hajian P. Designing and Construction of a Guiding Applicator System inIntraOperative Electron Radiotherapy. isro, 2019.

2. Siavashpour Z, Aghamiri MR, Jaberi R, Kirisits Ch. Modeling to compensate for intra-fractional bladder dose variations in gynecological brachytherapy. ESTRO 36, Austria, 2017.

3. Anbiyai E, Taji AR, Siavashpour Z, Amari A. Heart dose evaluation in two free-breathing and deep-breathing modes of breast cancer patients. ESTRO 36, Austria, 2017.

4. Siavashpour Z, Aghamiri MR, Jaberi R, Dehghan Manshadi HR, Kirisits Ch. Artificial neural network for bladder dose interfractional variation prediction in GYN brachytherapy. ESTRO 35. Turin, 2016.

5. Siavashpour Z, Aghamiri MR, Jaberi R, Dehghan Manshadi HR, Evaluation of the intra-fractional organ position variation during HDR intracavitary brachytherapy of cervical cancer. . 3ND ESTRO FORUM, Barcelona, Spain. 2015.

6. Siavashpour Z, Aghamiri MR, Jaberi R, Zare Akha N, Dehghan Manshadi HR, Full or empty bladder preference, from this OAR dose viewpoint, in different Tandem length ICBT applicator insertion. ESTRO 33.Vienna. 2014.

7. Siavashpour Z, Aghamiri MR, Jaberi R, Zare Akha N, Dehghan Manshadi HR, Karimkhani Zand S. Effect of bladder fullness in brchytherapy procedure for EBRT complete response treated cervical cancer patients. 2ND ESTRO FORUM, Geneva 2013.

8. Shahbazi-Gahrouei D, Nasri H, Baradaran-Ghahfarokhi M, Siavashpour Z*. Effects of Mobile Phones Exposure on Human Ferritin: An In-Vitro Enzyme Assay. Second Non Ionizing Radiation Safety Conference. Shiraz, 2012.

9. Mosleh-Shirazi MA, Faghihi R, Hadad K, Bagheri MH, Baradaran-Ghahfarokhi M, Siavashpour Z * and Meigooni AS. 125I versus 103Pd for Prostate Brachytherapy: A Monte Carlo Dosimetric Study. 1st MEFOMP International Conference Medical Physics, Shiraz, 2011.

10. Sina S, Faghihi R, Meigooni AS, Siavashpour Z, Mosleh Shirazi M A. Developing a TG-43U1 Based Dose Calculation Treatment Planning Software for Cs-137 LDR Brachytherapy. ID: SU-E-T-714, American Association of Physicists in Medicine (AAPM) meeting, 2011.

11. Siavashpour Z*, Mosleh Shirazi M A, Faghihi R, Nedai H A, Mehdizadeh S. The Effects of Applicator Displacement on Dose Distribution around Cs-137 Brachytherapy Sources. ID: SU-E-T-705, American Association of Physicists in Medicine (AAPM) meeting, 2011.

12. MoslehShirazi M A, Faghihi R, Nedai H A, Mehdizadeh S, Siavashpour Z*, "Evaluation of a home-made Brachytherapy Treatment Planning System using Monte Carlo simulation, TLD measurement and comparison with PLATO" 9th ICMP, 2010.

13. Baradaran M, Rahimi A, Faghihi R, AlavianGhavanini A, Farshadi A and Siavashpour Z. "Irradiation of the nutrition by means of Gamma Cell Co-60 Source for Microbial Quality Reduction" Congress on Peaceful Application of Nuclear Technology, Shiraz, 2009.

14. MoslehShirazi M A, Faghihi R, Mehdizade S, Nedai H A and Siavashpour Z*. "Evaluation of the Standard Isodoses of the PLATO Treatment Planning Software in Cervical Cancer Brachytherapy by Monte Carlo Simulation Methods". Congress on Peaceful Application of Nuclear Technology, Shiraz, 2009.

15. Faghihi R, Bradaran Ghahfarokhi M, Siavashpour Z, Nematolahi M R,. "Variation of indoor radon concentration in houses in Iran with internal wall covering materials". Congress on Peaceful Application of Nuclear Technology, Shiraz, 2009.

16. Baradaran Ghahfarokhi M, Nematolahi M R, Siavashpour Z, Hakim Davoud M R, "Hourly, monthly simulation for analyzing the relation of temperature, relative humidity, air flow, ventilation rate with radon transport in houses". Congress on Peaceful Application of Nuclear Technology, Shiraz, 2009.

17. MoslehShirazi M A, Faghihi R, Nedai H A, Mehdizadeh S, Siavashpour Z*, "Evaluation of a home-made Brachytherapy Treatment Planning System using Monte Carlo simulation, TLD measurement and comparison with PLATO" 9th ICMP, 2010.

18. Mortazavi SMJ, MoslehShirazi M A, Baradaran M, Siavashpour Z, Farshadi A, "Production of a Datolite-Based Heavy Concrete for Shielding Nuclear Reactors and Megavoltage Radiotherapy Room", International Conference on Modern Radiotherapy, France, Dec. 2009.

19. Faghihi R, Baradaran M, Farshadi A, Siavashpour Z, Salimi E, Ghavanini A, "The effect of Electro Magnetic Field exposure Produced by Mobile phones on Elisa Surveyor " .LOWRAD 2009.

20. Hadad K, Mehdizadeh S, Hakim davoud MR, Baradaran M, Siavashpour Z ."Steady state and long term relation of temperature, relative humidity, air flow, ventilation rate with radon transport in houses: hourly analyze simulation and experimental measurements", International Conference on Radiation Biology & Translational Research in Radiation Oncology. ICRB 2008.

21. Hadad K, Mehdizadeh S, Hakim davoud MR, Baradaran M, Siavashpour Z."Indoor radon monitoring in Iran using passive and active measurement" , International Conference on Radiation Biology & Translational Research in Radiation Oncology. ICRB 2008.

22. Mortazavi SMJ, M. Alavi, SiavashpourZ and shahabi. “sorption of technetium-99 anion on bentonite and zeolite”, 7th international meeting on the effects of low doses of radiation in biological systems. Lowrad, Portugal, 2008-p1.33.

23. Baradaran M, Rahimi A, Faghihi R, AlavianGhavanini A, Farshadi A and Siavashpour Z.“ Radiation effects on the Microbial Quality of Meat”, 6th Iranian Society of Radiography, Shiraz, 2008.

24. Mehdizadeh S, Siavashpoor Z*, Farshadi A. “Radiation Protection of Mammography Division in Shiraz ”lowrad 7th international meeting on the effects of low doses of radiation in biological systems, Lisbon, Portugal,2008.

HONORS and AWARDS

- **Elected and member of the National Elite Foundation of Iran**, 2018-Present.
- **Visiting Scholarship as Faculty for training in Rotterdam and Amsterdam Cancer Center**, The Netherlands, 2019.
- **Visiting Scholarship as PhD student for training sabbatical in Gustave Roussy Cancer Center**, Paris, France, 2016.
- **Visiting Scholarship as PhD student for training sabbatical in Vienna Medical University**, Vienna, Austria, 2015.
- **Winner of 2014 'Shahid Shahriyari' Grant for PhD training Shahid Beheshti University**, Tehran, Iran, 2013.
- **Selected by Shahid Beheshti University as Brilliant talented Student for Ph.D.**, 2011.
- **Honor student of M.S. Degree in Medical Radiation Engineering**, Shiraz University, 2010.
- **Member of a Research Group in a Patented Invention,** Shiraz Medical University, 2009.

ACADEMIC Experiences

5	**2**	**6**	**2**	**10**
Projects	Invention	Advisor	Co.Editor	Cources

Invention

1. Jaberi R, Siavashpour Z, Rostampour E. "Brachytherapy QC Phantom". Invention numbar: 98078, 2019.

2. Mortazavi SMJ, Mosleh-Shirazi MA, Baradaran-Ghahfarokhi M., Siavashpour Z Farshadi A and Ghafouri M. "Production of a Datolite-Based Heavy Concrete Shields used in Nuclear powerhouse". Invention number: 59322, 2009.

Book

Alireza Kamali Asl, Zahra Siavashpour, “Fundamentals of Medical Imaging”, Translation, Shahid Beheshti Publishers, 2018.

Work Experiences

- **Faculty and Medical Physicist:** Radiation Department of Shohadaye Tajrish Hospital, Radio-Oncology department, Shahhid Beheshti Medical University Tehran, Iran, Jan 2019-present.
- **Health physicist officer and Physicist:** Radiation Department of Emam Hosein Hospital, Tehran, Iran, Jan 2015-2019.
- **Health physicist officer and Physicist:** Radiation Department of Asia Hospital, Tehran, Iran, 2013-2018.
- **Health physicist officer and Physicist:** Eye Brachytherapy operation room of Torfe Hospital, Tehran, Iran, Jan 2016-2019.
- **Physicist:** Radiation Department of Moheb Yas Hospital, Tehran, Iran, 2015-2016.
- **Physicist:** Radiation Department of Asia Hospital, Tehran, Iran, 2013-2018.
- **Physicist:** Radiation Department of Shiraz Namazi Hospital, Shiraz, Iran, 2011-2012.
- Work at Instruction Division of Coroner’s Office, Shiraz, 2010.