

Hadi Taleshi Ahangari

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EDUCATION

TarbiatMoaderes University, Department of Medical Physics Tehran, Iran

- Ph.D. in Medical Physics, 2008-2014
- Supervisors: Prof. H. Rajabi, Advisor: Prof. M.Eftekhari , Prof F.Johari-Daha.

TarbiatMoaderes University, Department of Medical Physics Tehran,Iran

- M.Sc. in Medical Physics, 2007-2010
- Supervisors: Prof. H. Rajabi.

Iran University of Science and Technology Tehran, Iran

- B.Sc. in Atomic Physics, 1999-2004

High School in Educational Training Center for Talented Students, Gaemshahr, Iran

- Diploma in Mathematic Sciences, 1995-1999
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AREAS OF EXPERTISE

- Mathematical methods for image processing and reconstruction algorithms
 - Designing correction in diagnostic medical imaging, especially in PET and SPECT images
 - MATLAB programming
 - Simulation studies
 - System design,
 - Web design, html, CSS, PHP, SQL
 - Machine Learning
 - Deep Learning
 - C++, Phyton
 - **Simulation Software**
 - GATE
 - GEANT
 - SimSET
 - SIMIND
 - MCNP
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PUBLICATIONS

Articles

- Faraz Kalantari, Hossein Rajabi, Bahareh Shalchian, Kourosh Ebrahim Nezhad Gorji, [Hadi Taleshi Ahangari](#). Estimation of Scatter Function in SPECT Imaging of Heart using Deconvolution Method: A Simulation Study. *Iranian Journal of Medical Physics*, 2006; 3:37-48.

- Kourosh Ebrahim Nejad Gorgi, Hossein Rajabi, Ebrahim Hajizadeh, Faraz Kalantari, [Hadi Taleshi](#). Reducing the respiratory motion artifacts in PET cardiology: A simulation study. *Iranian Journal of Nuclear Medicine*.2007;15(2): 49-57.
- Ali Asghar Parach , Hossein Rajabi , Mohammad Ali Tajik-Mansoury, [Hadi Taleshi Ahangari](#). Comparison of GATE and MCNP Monte Carlo codes for internal dosimetry.. *Iranian Journal of Nuclear Medicine* .2010; 18(Suppl 1): 108.
- Mohsen Hajizadeh Saffar, Shabnam Oloomi, Peter Knoll, [Hadi Taleshi](#) . A new approach to scatter correction in SPECT images based on Klein_Nishina. *Iranian Journal of Nuclear Medicine*. 2013; 21(1); 19-25.
- [Hadi Taleshi Ahangari](#), Hossein Rajabi, Mohammad Eftekhari, Fariba Johari Daha, Mohammad Ali Tajik Mansoury. Liver Bremsstrahlung Imaging with Pure Beta Emitter. *Journal of Medical Sciences*. 2014; 14(5):210-216.
- [Hadi Taleshi Ahangari](#), Hossein Rajabi, Mohammad Eftekhari, Johari Fariba, Daha. Assessment of Layer Collimator in Bremsstrahlung Imaging during Radionuclide Therapy with Phosphorus-32 . *J Mazandaran Univ Med Sci*. 2014;24(116): 23-31.
- [Hadi Taleshi Ahangari](#), Ali Ghanbari, Nasroallah Moradi kor. Evaluation of MCNPX and GATE with HotSpot for Internal Dosimetry (Simulation Study). *Int. J. Adv. Biol. Res*. 2015; 3(3): 275-284.
- Mehravar Rafati, Hemmatoallah Rouhani, Ahmad Bitarafan-Rajabi, Mahsa Noori-Asl, Bagher Farhood, [Hadi Taleshi Ahangari](#). Assessment of the scatter correction procedures in single photon emission computed tomography imaging using simulation and clinical study. *J Can Res Ther*. 2017;13:936-42.
- Majid Jadidi, [Hadi Taleshi Ahangari](#), Payman Hejazi , Mohammad Ali Tajik Mansoury . Evaluation of Effective factor on the Education Performance of Medical physics group. *Biannual Journal of Medical Education Education Development Center (edc) Babol University of Medical Sciences*. 2018 Sep 10;6(2):39-47.
- Mohammad Ali Tajik-Mansoury, [Hadi Taleshi Ahangari](#), Hossein Rajabi, Majid Jadidi Evaluation of cellular S-value of auger electrons emitting 111 in radionuclide by Geant4 and its comparison with MCNP5 Monte Carlo codes and MIRD published data. *Koomesh*. 2019;21(3).
- Shiva Zarifi, [Hadi Taleshi Ahangari](#), Seyyed Bijan Jia, Mohammad Ali Tajik-Mansoury. Validation of GATE Monte Carlo code for simulation of proton therapy using National

Institute of Standards and Technology library data. Journal of Radiotherapy in Practice. 2019;18(1), 38-45. doi:10.1017/S1460396918000493

- Shiva Zarifi, [Hadi Taleshi Ahangari](#), Seyyed Bijan Jia, Mohammad Ali Tajik-Mansoury, Milad Najafzadeh, Milad Peer Firouzjaei. Bragg peak characteristics of proton beams within therapeutic energy range and the comparison of stopping power using the GATE Monte Carlo simulation and the NIST data. Journal of Radiotherapy in Practice, 2019;19,1-9. doi:10.1017/S1460396919000554
- Ali Ghanbari, Nasroallah Moradi-kor, [Hadi Taleshi Ahangari](#). Simulation and calculation of power plant accidents doses using HotSpot software. Eurasian Chemical Communications, 2020; 2(1),103-108. doi: 10.30473/icc.2019.47538.1586
- Shiva Zarifi, [Hadi Taleshi Ahangari](#), Seyyed Bijan Jia, Mohammad Ali Tajik-Mansoury, Milad Najafzadeh. GATE modeling of lateral scattering of proton pencil beams. 2020;1-13, doi:10.1093/rpd/ncaa015
- Hossein Rajabi, [Hadi Taleshi Ahangari](#), Iraj Mohammadi, Alireza Mohammadkarim, Mohammad Ali Tajik-Mansoury. Attenuation correction in single-photon emission computed tomography for NURBS-based cardiac-torso phantom using dual-energy acquisition. World J Nucl Med, 2019; doi:10.4103/wjnm.WJNM_55_19
- Elham Kashian, [Hadi Taleshi Ahangari](#), Vahab Dehlaghi, Karim Khoshgard, Pardis ghafarian, Raheb Ghorbani. Monte Carlo simulation and performance assessment of GE Discovery 690 VCT positron emission tomography/computed tomography scanner. World J Nucl Med, 2020; doi: 10.4103/wjnm.WJNM_4_20
- Rohollah Ghahraman Asl, Rezvan Sabbaghi, [Hadi Taleshi Ahangari](#), Payman Hejazi, Majid Foroutan. Prediction of Absorbed Dose to Normal Organs with Endocrine Tumors for I-131 by use of 99mTC Single Photon Emission Computed Tomography/Computed Tomography and Geant4 Application for Tomographic Emission Simulation. Indian J Nucl Med, 2021; Jul-Sep; 36(3): 273–281. doi: 10.4103/ijnm.ijnm_6_21
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Books

- Basic Physics (1), Hamrah Alavi, 1389.
- Basic Physics (2), Hamrah Alavi, 1389.
- Basic Physics (3), Hamrah Alavi, 1389.
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- A new method for attenuation correction using dual energy window. H. Taleshi Ahangari, H. Rajabi, F. Kalantari, A. Bitarafan Rajabi, 10th Iranian Annual Congress of Nuclear Medicine, Iran J Nucl Med 2006; Vol:14 , Supplement 1
- International Symposium on Advances in Diagnostic Medical Physics & Workshop on Cyclotron - PET/CT, AIIMS, New Delhi, India , 2006
- Geant4 simulation for positron range in inhomogeneous medium .Poster presentation for 8th Iranian Congress of Medical Physics, Tehran, Iran, 2008
- A new method for attenuation correction in SPECT using dual energy acquisition. Hadi Taleshi Ahangari, Hossien Rajabi; *presented in The 4th International Conference on Imaging Technologies in Biomedical Sciences (ITBS 2007)*
- Comparison of GATE and MCNP Monte Carlo codes for internal dosimetry. Ali Asghar Parach, Hossein Rajabi, Mohammad Ali Tajik-Mansoury, Hadi Taleshi Ahangari . Iranian Journal of Nuclear Medicine, 2010;18(Suppl 1) : 108.
- Validation of Gate Monte Carlo simulation for bremsstrahlung planar imaging and assessment the energy window, Hadi Taleshi Ahangari, Hossien Rajabi, Saeed Farzanefar, Mohammad Eftekhari, presented in the 3th International Conference & 15th Iranian Annual Congress of Nuclear Medicine, Tehran, Iran, 2011.
- GATE validation with a model for the accurate computation of the lateral scattering of protons in water. Shiva Zarifi, Hadi Taleshi Ahangari, Ali Rahimi, Karim khoshgard, presented in the 20th Annual Meeting of Iranian Society of nuclear Medicine, Mazandaran, Iran , 2016.
- Validation of GATE Monte Carlo Simulation of the GE Discovery PET/CT 690 VCT. Elham kashian , Hadi Taleshi Ahangari, Vahab Dehlaghi, Karim Khoshgard, Pardis Ghafarian Shiva Zarifi. The 21st Annual and 6th International Congress of Nuclear Medicine and Molecular Imaging. November 22-24, 2017.
- Evaluation of methods of co-segmentation on PET/CT images of lung tumor: simulation study .Kashian E, Taleshi Ahangari H, Dehlaghi V, Khoshgard K, Ghafarian P, Mousavie Anijdan H, Zarifi S. Iranian Journal of Medical Physics. 2018 Dec 1;15(Special Issue-12th. Iranian Congress of Medical Physics):35.
- A method for range calculation of proton in liquid water: Validation study using Monte Carlo method and NIST data. Zarifi S, Taleshi Ahangari H, Jia SB, Tajik Mansoury MA, Mousavie Anijdan H. Iranian Journal of Medical Physics. 2018 Dec 1;15:360.

- Monte Carlo calculation of proton ranges in water phantom for therapeutic energies. Zarifi S, Taleshi Ahangari H, Jia SB, Tajik Mansoury MA, Kashian E, Jadidi M. Iranian Journal of Medical Physics. 2018 Dec 1;15(Special Issue-12th. Iranian Congress of Medical Physics):361.
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- Statistical uncertainty estimation in the calculation of the proton range in water phantom. Zarifi S, Taleshi Ahangari H, Jia SB, Tajik Mansoury MA, Kashian E, Hejazi P. Iranian Journal of Medical Physics. 2018 Dec 1;15:362.
- Evaluation and modelling of lateral scattering of proton pencil beams in tissue elements with using Monte Carlo simulation. Shiva Zarifi, Hadi Taleshi Ahangari, Sayyed Bijan Jia, Mohammad Ali Tajik Mansoury. The 3rd International Clinical Oncology Congress. 2018 Dec 19-21 ,Tehran, Iran..
- Validation of monte carlo Geant4 code for the accurate computation of the lateral scattering of protons in water phantom. Shiva Zarifi, Hadi Taleshi Ahangari, Elham kashian. 34th Iranian Congress of Radiology, 2018 May 1-4, Tehran, Iran.
- GATE Monte Carlo simulation of the PET scanner of GE Discovery 690. Elham kashian , Hadi Taleshi Ahangari, Pardis Ghafarian Shiva Zarifi. 34th Iranian Congress of Radiology, 2018 May 1-4 Tehran, Iran.
- Modeling the relationship between the proton energy range and lateral scattering in the water phantom for proton therapeutic energy using GEANT4 toolkit. Rasul Shamohamadi, Ali Akhavan, Marziyeh Behmadi, Hadi Taleshi Ahangari. The Fourth International Clinical Oncology Congress and the 14th Iranian Annual Clinical Oncology Congress. 18-20 December 2019, Tehran, Iran.
- Measurment of dose uncertainty monte carlo method in 60 MEV proton therapy of lung cancer. Rasul Shamohamadi, Ali Akhavan, Marziyeh Behmadi, Hadi Taleshi Ahangari. The Fourth International Clinical Oncology Congress and the 14th Iranian Annual Clinical Oncology Congress. 18-20 December 2019, Tehran, Iran.