



Curriculum Vitae (CV)

Mikaeil Molazadeh

Personal Information:

Mikaeil Molazadeh, Ph.D. of Medical Physic

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Educational Background:

Degree	Field	Institution	Received Date
B.Sc	Solid state physics	Urmia University	2005
M.Sc	Medical Physics	Tehran Medical Sciences University	2009
Ph.D.	Medical Physics	Tehran Medical Sciences University	2017

Master Thesis: Treatment planning systems verification of ^{60}Co machine and Gamma Knife unit using RadioChromic film and MC simulation in head phantom.

Ph.D. Dissertation: Introduce a new method for three-dimensional dosimetry in IMRT with RadioChromic film and comparison with the results of Monte Carlo simulation and Full Scatter Convolution computational algorithm in the head heterogeneous environment.

Administrative Positions:

Job Title	Place of Work	Date	Name of Institution
Radiotherapy Physicist	Department of Physics	2009- 2013	Radiotherapy Center of Urmia Omid Hospital
University Tuition Teacher	Faculty of Paramedical	2010- 2013	Urmia University of Medical Sciences
University Tuition Teacher	Faculty of Health	2011-2013	Urmia University of Medical Sciences
Radiotherapy Physicist	Department of Physics	2014- 2016	Radiotherapy Center of Urmia Imam Khomeini Hospital
Chief Medical Physicist of Radiotherapy	Department of Physics	2016- 2022	Radiotherapy Center of Ardabil Imam Khomeini Hospital
Assistant Professor of Medical Physics	Department of Radiology	2021- 2022	Ardabil University of Medical Sciences
Medical Physicist of Radiotherapy	Department of Physics	2022- upward	Radiotherapy Center of Tabriz Shahid Madani Hospital
Assistant Professor of Medical Physics	Department of Medical Physics	2022- upward	Tabriz University of Medical Sciences

Publications: (Journal & Conference papers)

- 1- Evaluation of organ dose using size-specific dose estimation (SSDE) and related cancer risk due to chest CT scan during the COVID-19 pandemic
Radiation and Environmental Biophysics
2024-01-07 | journal-article
PMID: 38185693 DOI: [10.1007/s00411-023-01056-x](https://doi.org/10.1007/s00411-023-01056-x)
- 2- Comparison of the Effects of Govarcin Herbal Capsule and Metoclopramide for Alleviating Gastrointestinal Symptoms in Patients with Functional Dyspepsia: A Randomized Double-blind Clinical Trial
Reviews on Recent Clinical Trials
2023-12-15 | journal-article
DOI: [10.2174/0115748871266848231120112355](https://doi.org/10.2174/0115748871266848231120112355)
- 3- Comparison of Monte Carlo and Collapsed Cone algorithms performance used in the Monaco treatment planning system in prediction of Cardiac and Pulmonary complications in left- breast cancer radiotherapy
The third international congress of the scientific society of radiology students of the country

- 2023-12-11 | Conference-paper
<https://civilica.com/doc/1848633>
- 4- Assessment of the radiotherapy treatment plans of Three-dimensional conformal radiation therapy, intensity modulated radiation therapy and tomotherapy in prostate cancer using dosimetric and radiobiological indices
The third international congress of the scientific society of radiology students of the country
2023-12-11 | Conference-paper
<https://civilica.com/doc/1848598>
- 5- Evaluation of dose calculation accuracy of ISOgray treatment planning system in prediction of dose fluctuation levels during radiotherapy of breast cancer at 6-15 MV beam energies
The third international congress of the scientific society of radiology students of the country
2023-12-11 | Conference-paper
<https://civilica.com/doc/1848645>
- 6- Introduce a new three-dimensional dosimetry method of IMRT with radiochromic film and comparison results with Monte Carlo simulation and Full Scatter Convolution computational algorithm in the heterogeneous head phantom
<https://civilica.com/doc/1848622>
- 7- Collapsed Cone Superposition Algorithm Validation for Chest Wall Tangential Fields using Virtual Wedge Filters
Journal of Medical Signals & Sensors
2023-07-12 | journal-article
DOI: [10.4103/jmss.jmss_7_22](https://doi.org/10.4103/jmss.jmss_7_22)
- 8- Assessment of the knowledge level of radiographers and CT technologists regarding computed tomography parameters in Iran
Radiation Medicine and Protection
2023-01-13 | journal-article
DOI: [10.1016/j.radmp.2023.01.002](https://doi.org/10.1016/j.radmp.2023.01.002)
- 9- Measuring the leakage dose of TiGRT Dynamic MLC with EDGE diode dosimeter and EBT3 radiochromic film and comparing the results with BEAMnrc code calculations
Iranian Journal of Radiation Safety and Measurement
2022-07-31 | journal-article
- 10- The alleviating effect of herniarin against ionizing radiation-induced genotoxicity and cytotoxicity in human peripheral blood lymphocytes

Current Radiopharmaceuticals

2021-10-21 | journal-article

PMID: [34636317](#)

DOI: [10.2174/1874471014666211012104808](#)

- 11- Three-dimensional IMRT QA of Monte Carlo and full scatter convolution algorithms based on 3D film dosimetry

Radiation Physics and Chemistry

2021-04-28 | journal-article

PMID: [32334505](#)

DOI: [10.1016/j.radphyschem.2021.109528](#)

- 12- Synthesis of new thioureas derivatives and evaluation of their efficacy as proliferation inhibitors in MCF-7 breast cancer cells by using ^{99m}Tc-MIBI radiotracer.

Medicinal chemistry (Sharīqah (United Arab Emirates))

2020-04-25 | journal-article

PMID: [32334505](#)

DOI: [10.2174/1573406416666200425224921](#)

- 13- Evaluation of Three-dimensional Treatment Planning System (TPS) performance in dose calculation of virtual wedged fields using film dosimetry.

Iranian Journal of Medical Physics

2018-12 | Conference-paper

DOI: [10.22038/ijmp.2018.12792](#)

- 14- Dosimetric characteristics of LinaTech DMLC H multi leaf collimator: Monte Carlo simulation and experimental study.

Journal of Applied Clinical Medical Physics

2017 | journal-article

DOI: [10.1002/acm2.12055](#)

EID: 2-s2.0-85014729902

Part of ISSN: [15269914](#)

- 15- Investigating the Use of Personal Information Management Strategies by Faculty Members of three Medical Sciences Universities in Iran.

MIER Journal of Educational Studies, Trends and Practices

2017-01 | journal-article

DOI: [10.52634/mier/2017/v7/i1/1450](#)

- 16- Validation of a prototype optical computed tomography system.

Journal of Medical Signals and Sensors

- 2015 | journal-article
DOI: [10.4103/2228-7477.157621](https://doi.org/10.4103/2228-7477.157621)
EID: 2-s2.0-85020469434
Part of ISSN: [22287477](https://doi.org/10.4103/2228-7477)
- 17- Studying of the treatment plans of 3D conformal fields of the treatment planning system based on physical parameters in radiotherapy of esophageal and rectal cancers
11th Iranian Medical Physics Conference
2014 | Conference-paper
<https://www.sid.ir/paper/838461/fa>
- 18- Influence of the intravenous contrast media on treatment planning dose calculations of lower esophageal and rectal cancers.
Journal of Cancer Research and Therapeutics
2014 | journal-article
DOI: [10.4103/0973-1482.131465](https://doi.org/10.4103/0973-1482.131465)
EID: 2-s2.0-84899704102
Part of ISSN: [19984138 09731482](https://doi.org/10.4103/0973-1482)
- 19- Evaluation the effect of photon beam energies on organ at risk doses in three-dimensional conformal radiation therapy.
Research Journal of Applied Sciences, Engineering and Technology
2013 | journal-article
DOI: [10.19026/rjaset.6.3833](https://doi.org/10.19026/rjaset.6.3833)
EID: 2-s2.0-84880678395
Part of ISSN: [20407467 20407459](https://doi.org/10.19026/rjaset.6.3833)
- 20- Evaluation of Dose Distributions Within Target Volume and Organs at Risk (OARs) in Radiotherapy of Lower Esophageal Cancers Using a 3D Treatment Planning System
Proceedings of the First MEFOMP International Conference of Medical Physics
2011-11-02 | Conference-paper
https://jbpe.sums.ac.ir/article_43023_0190b12fd7ad0f4bb988252f71603cd6.pdf
- 21- Evaluation of the RtDosePlan Treatment Planning System using Radiochromic Film and Monte Carlo Simulation.
Iranian Journal of Medical Physics
2010-06 | journal-article
DOI: [10.22038/ijmp.2010.7264](https://doi.org/10.22038/ijmp.2010.7264)
- 22- Investigating the dose distribution of the Cobalt 60 treatment planning system using radiochromic film and Monte Carlo simulation

16th Iranian conference on Biomedical Engineering

2009-07-02 | Conference-paper

<https://civilica.com/doc/73415>

Congresses and Seminars:

- 1- The third international congress of the scientific society of radiology students of the country, 2023, Oral Presentation.
- 2- The 6th conference of ionizing, and non-ionizing radiation measurement, and safety, 2021, Oral Presentation.
- 3- The 12th Iranian Congress of Medical Physics, 2018, Oral Presentation.
- 4- The 11th Iranian Congress of Medical Physics, 2014, Poster Presentation.
- 5- The 1st MEFOMP International Congress of Medical Physics, 2011, Poster Presentation.
- 6- The 9th Iranian Congress of Medical Physics, 2010, Oral Presentation.
- 7- The 16th Iranian Congress on Biomedical Engineering, 2009, Oral Presentation.

Membership to Scientific Associations:

Iranian Association of Medical Physicists (IAMP), 2013 upward. (Membership No: MOL359M)

Courses Taught:

General Physics, Medical Physics and Electricity, Dedicated Physics, Exclusive Theoretical Physics.

Professional Experiences:

- 1- Commissioning of Siemens Magnetron HPD Single/Multi Energy Accelerator (PRIMUS Model).
- 2- Commissioning of Elekta Magnetron Single Energy Accelerator (COMPACT Model).
- 3- Commissioning of CorePLAN, MIRS, ISOgray and RtDosePlan Treatment Planning Systems
- 4- Mastery and work with the tools and equipment in the field of dosimetry and radiation (QA/QC):
 - a. Theratron/Picker ⁶⁰Co/ONCOR/PRIMUS/Elekta/ARTISTE/Tomotherapy Radixact (X7) machines.
 - b. GZP6 HDL Afterloading Intracavitary Treatment Unit.
 - c. DailyQA3/Profiler2/PTW/Quick Check/Detector 1500 (Check Devices).
 - d. Farmer/Roos/Markus/Edge/Diode/Exradin A1SL/Exradin A101 (Field Detectors).
 - e. 1D/3D scanning systems (Water phantom of Sun Nuclear/PTW/Behyarr sanaat Corporations).

- f. CYRPA HIT/LAP Laser Systems
- g. MP3 PTW water phantom System
- h. PTW MEPHYSTO Navigator scanning software
- i. MOSAIQ/LANTIS Oncology Information System Interface
- j. ARTISTE Siemens/Elekta Synergy EPID System
- k. PTW OCATIUS 4D/VeriSoft

Research Interests:

- Radiation Therapy Physics
- Radiation Treatment Planning
- Radiation Dosimetry
- Plan Optimization
- Monte Carlo Simulation (BEAMnrc)
- IMRT/3DCRT/Tomotherapy
- IMRT/Tomotherapy QA
- Film Dosimetry