# Ali Jomehzadeh

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## Personal information

**First Name:** Ali
**Last Name:** Jomehzadeh Mahani
**Birth Date**: 6/9/1977
**Marital status:** Married

## Contact Information


 Department of Medical Physics, Medical School, Kerman University of Medical Sciences, Kerman, Iran.
 Radiation Therapy Dept., Safa Kerman Hospital, Kerman, Iran.
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## Educational History

***2009–2014***

**PhD**: Medical Physics Dept., Isfahan University of Medical Sciences,
Isfahan, Iran.
 **Major:** Medical Physics
 **Title of Thesis:** Evaluation of a 2D EPID-based Doismetry Algorithm to determine Midplane Dose and Assessment of Sensitivity of 3D EPID-based dosimetry for Detecting Errors in VMAT Technique
 **Research Advisors:**
1- Dr. Parvaneh Shokrani,
Associated professor, Medical Physics Department, Isfahan University of Medical Sciences, Isfahan, Iran.
Email: shokrani@med.mui.ac.ir , Shokrani14@yahoo.com
2- Dr. Mohammad Mohammadi
Associated professor, School of Chemistry and Physics, Department of Physics, Division of Medical Physics, Adelaide, Australia,
E-Mail: mohammad.mohammadi@adelaide.edu.au , mmmohammadi@yahoo.com

***2001– 2004***

 **M. Sc**: Medical Physics. Dept, Mashhad University of Medical Sciences,
Mashhad, Iran.
 **Major:** Medical Physics
 **Title of Thesis:** Study of Indoors and Outdoors Background Radiation in Kerman Province Towns and Comparison of Indoors Gamma Dose Rates Using TLD and RDS-110
 **Research Advisors:**
Prof. Seyyed MohammadTaghi Bahreyni Toosi (Professor, Medical Physics Department, Mashhad University of Medical Sciences, Mashhad, Iran, Email: BahreyniMT@mums.ac.ir), Score (20 of 20)

***1995–1999***

 **B. Sc:** Physics. Dept, Shahid Bahonar University of Kerman, Kerman, Iran.

 **Major:** Applied Physics

## Academic Appointments

| Year | Acamenic Rank | Institute |
|---|---|---|
| 2004-2007 | Instructor of Medical Physics | Hormozgan Uni Med Sci |
| 2007-2014 | Instructor of Medical Physics | Rafsanjan Uni Med Sci |
| 2014- Present | Assistant Professor in Medical Physics | Kerman Uni Med Sci |

## Research Interests

• **Radiation Therapy**

 Electronic Portal Imaging Devices (EPIDs)

 IMRT

 VMAT

 Dose Verifications in Advanced Radiation Therapy Techniques

• **Medical Dosimetry**

 IAEA Protocols in Radiotherapy

 AAPM Protocols in Radiotherapy

• **Radiation Protection**

 Radiation Protection in Medical Radiation

 Environmental Radiation Protection

## Publications

1- **Jomehzadeh A**, Jomehzadeh Z, Tavakoli MB. **Quality Control of Radiography X-ray Generators in Kerman Province, Southeastern Iran.** IJMP (In Press).

2- **Jomehzadeh A**, Spreeuw H, Olaciregui- Ruiz I, Rozendaal R, Shokrani P, Tielenburg R, Mans A, Mijnheer B. **Sensitivity of EPID-based 3D dosimetry to detect errors during VMAT delivery.** *Phys Med Bio*, 2014 (In Press).

3- **Jomehzadeh A**, Shkrani P, Mohammadi M, Amouheidari A. **Assessment of a 2D EPID-based dosimetry algorithm for pretreatment and in-vivo midplane dose verification**. *Adv Biomed Res*. 2014 (In Press).

4- **Jomehzadeh A**, Shokrani, P, Mohammad M, Amouheidari A. **A quality assurance program for an amorphous silicon electronic portal imaging device using in-house developed phantoms: a method development for dosimetry purposes.** *Int J Rdiat Res*, 2014; 12(3): 267-274.

5- Gholami M, Mirzaei S**, Jomehzadeh A**. **Gamma background radiation measurement in Lorestan Province in Iran**. *Int J Rdiat Res*, 2011; 9(2):89-93.

6- Bahreyni Toossi M.T, Bayani SH, Yarahmadi M, Aghamir A, **Jomehzadeh A**, Hagh Parast M, Tamjidi M. **Gonad, bone marrow and effective dose to the population of more than 90 towns and cities of Iran, arising from environmental gamma radiation.** . *Int J Rdiat Res*, 2009; 7 (1): 41-47

7- **Jomehzadeh A**, Jomehzadeh Z. **Gamma Dose Rate Measurement and Dose Rate Calculation for Sensitive Organs in the Vicinity of Hot Springs in Kerman Province.** *Iran J Med Phys*; 5(2), 2009.

8- Abedini S, Abedini S, Aghamolaei A**, Jomehzadeh A**, Kamjo A. **Clinical Education Problems: The Viewpoints of Nursing and Midwifery Students in Hormozgan University of Medical Sciences.** *Hormozgan Med J*, 4(3):249-253, 2008.

9- Bahreyni Toosi, MT, **Jomehzadeh A. Comparison of Environmental Gamma Radiation of Kerman Privince and Indoor Gamma Dose Rate in Kerman City Using Thermoluminescent Dosimeter (TLD) and RDS-110.** *Hormozgan Med J*, 9(3):173-180, 2005.

## Patent

New Quality Assurance Phantom Developments for Electronic Portal Imaging Devices (EPIDs) Installed on Linear Medical Accelerators (Linacs)

## Conference Presentations

1- **Jomehzadeh A**, Shokrani P, Mohammadi M, Amouheidari A. **A quality assurance program for an amorphous silicon electronic portal imaging device using in-house developed phantoms: a method development for dosimetry purposes**. *ICHLNRRA2014 Conference*, Prague, Czech Republic, 2014.

2- **Jomehzadeh A**, Spreeuw H, Rozendaal R, Olaciregui-Ruiz I, Tielenburg R, van Herk M, Mijnheer B, Mans A. **Sensitivity of EPID-based In Vivo Dosimetry to Detect Errors during VMAT Delivery**. *ESTRO 2013 Congress*, Geneva, Switzerland, 2013.

3- **Jomehzadeh A,** Tavakoli MB, Jomehzadeh Z. **Assessment of Radioactive Waste per Patient in a Nuclear Medicine Center.** *10th International Congress of the Asia Oceania Federation of Nuclear Medicine and Biology*, Tehran, Iran, 2012.

4-Jomehzadeh Z, **Jomehzadeh A**, Gholami M. **Gamma Dose Rate Measurement and Dose Rate Calculation for Sensitive Organs in the Vicinity of Hot Springs in Kerman Province.** *The 9th Iranian Congeress of Medical Physics*, Tehran, Iran, 2010.

5- Gholami M, Mirzaei S, **Jomehzadeh A. Gamma background radiation measurement in the Lorestan Province in Iran.** *The 9th Iranian Congeress of Medical Physics*, Tehran, Iran, 2010.

6- **Jomehzadeh A**, Jomehzadeh Z, Gholami M. **Gamma Dose Rate Measurement in Bibihayat Region of Rafsanjan.** *The 9th Iranian Congeress of Medical Physics*, Tehran, Iran, 2010.

7- Gholami M, **Jomehzadeh A. Frequency Determination and Assessment of Medical Exposure in Lorestan Province.** *1st Research Festival of the Radiological Students*, Siraz, Iran, 2010.

8- **Jomehzadeh A,** Jomehzadeh Z, Gholami M. **Survey of Sodium Iodide-131 Contamination at Nuclear Medicine Department in Shafa Kerman Hospital.** *1st Research Festival of the Radiological Students*, Siraz, Iran, 2010.

9 - Jomehzadeh Z, **Jomehzadeh A. Indoor Radiation Leakage from Treatment Room of Nepton-10PC in Sahfa Hospital of Kerman.** *Radiation Protection Congress*, Tehran, Iran, 2009.

10- **Jomehzadeh A,** Jomehzadeh Z**.** Comparison of Background Radiation Before and After the Bam Earthquake. *The 6th Congress of the Iranian Radiological Sciences Association*, Shiraz, Iran, 2008.

11- **Jomehzadeh A,** Jomehzadeh Z. **Natural Radiation Evaluation in Vicinity of Bardsir, Zarand and Jiroft Hot Springs in Kerman Province.** *The 8th Iranian Congress of Medical Physics*, Tehran, Iran, 2008.

12- **Jomehzadeh A,** Bahreyni Toosi MT. **Gamma Dose Rate Changes in Buildings in the Region of Southestern Iran Using Thermoluminescence Dosimetry.** *World Congress on Medical Physics and Biomedical Engineering*, Seoul, South Korea, 2006.

13- Orougi MH, Sadeghzadeh A, Aghamir A, **Jomehzadeh A**, Zare H. **Annual absorbed dose rate at the surface of 38 hot and mineral springs in Iran.** *IRPA Congress*, Paris, France, 2006.

14- **Jomehzadeh A,** Bahreyni Toosi MT. **Influence of Ultraviolent (UV) Radiation on LiF: Mg, Cu, P dosimeter during Natural Radiation Monitoring.** *The 7th Iranian Congress of Medical Physics*, Ahvaz, Iran, 2006.

15- **Jomehzadeh A**, Bahreyni Toosi MT. **Environmental Gamma Radiation Indoors at Kerman Province, Southeastern Iran and Sensitive Organs Dose Estimation.** *Engineering & the Physical Sciences in Medicine 29th Annual Conference*, Adelaide, Australia, 2005.

16- **Jomehzadeh A,** Bahreyni Toosi MT. **A study of Background Gamma Radiation in Kerman Province and Comparison of Gamma Dose Rate Measured in Kerman Town (Inside Dwellings) by TLD and RDS-110.** *The 6th Iranian Congress of Medical Physics*, Masshhad, Iran, 2004.

# Experience

## Teaching:

- 2005-2007, "**Medical Physics"** to students of Medicine, Hormozgan University of Medical Sciences.
- 2004-2007, "**General Physics**" to students of Radiology, Hormozgan University of Medical Sciences.
- 2004-2007, "**Pre University Physics**" to students of Radiology, Hormozgan University of Medical Sciences.
- 2004-2007, "**Applied Physics**" to students of Laboratory Sciences, Hormozgan University of Medical Sciences.
- 2004-2007, "**General Physics**" to students of Laboratory Sciences, Hormozgan University of Medical Sciences.
- 2004-2007, "**Applied Physics**" to students of Laboratory Sciences, Hormozgan University of Medical Sciences.
- 2004-2007, "**Anesthesia Physics**" to students of Anesthesia, Hormozgan University of Medical Sciences.
- 2004-2007, "**Medical Physics**" to students of Operation Room, Hormozgan University of Medical Sciences.
- 2004-2007, "**Radiation Physics**" to students of Radiology, Hormozgan University of Medical Sciences.
- 2004-2007, "**Radiobiology and Radiation Protection**" to students of Radiology, Hormozgan University of Medical Sciences.
- 2004-2007, "**Radiation Diagnostics Physics**" to students of Radiology, Hormozgan University of Medical Sciences.
- 2004-2007, "**Applied Physics**" to students of Laboratory Sciences, Hormozgan University of Medical Sciences.
- 2004-2007, "**Applied Physics**" to students of Laboratory Sciences, Hormozgan University of Medical Sciences.
- 2004-2007, "**Radiology, Sonology and Electrology in Midwifery**" to students of Midwifery, Hormozgan University of Medical Sciences.
- 2004-2007, "**General Physics**" to students of General Health, Hormozgan University of Medical Sciences.
- 2004-2007, "**General Physics**" to students of Environmental Health, Hormozgan University of Medical Sciences.
- 2004-2007, "**General Physics**" to students of General Health, Hormozgan University of Medical Sciences.
- 2004-2007, "**General Physics Lab**" to students of Radiology, Hormozgan University of Medical Sciences.
- 2004-2007, "**Applied Physics Lab**" to students of Laboratory Sciences, Hormozgan University of Medical Sciences.
- 2007-2008, "**Medical Physics"** to students of Medicine, Rafsanjan University of Medical Sciences.
- 2007-2008, "**Medical Physics"** to students of Dental, Rafsanjan University of Medical Sciences.
- 2007-2008, "**General Physics**" to students of Radiology, Rafsanjan University of Medical Sciences.

 2007-2008, "**Applied Physics**" to students of Laboratory Sciences, Rafsanjan University of Medical Sciences.
 2007-2008, "**Medical Physics**" to students of Operation Room, Rafsanjan University of Medical Sciences.

 2007-2008, "**Radiation Physics**" to students of Radiology, Rafsanjan University of Medical Sciences.
 2007-2008, "**Radiobiology and Radiation Protection**" to students of Radiology, Rafsanjan University of Medical Sciences.
 2007-2008, "**Radiation Diagnostics Physics**" to students of Radiology, Rafsanjan University of Medical Sciences.
 2007-2008, "**General Physics Lab**" to students of Radiology, Rafsanjan University of Medical Sciences.
 2007-2008, "**Applied Physics Lab**" to students of Laboratory Sciences, Rafsanjan University of Medical Sciences.

## Workshops:

2014, 1 Day "**Small Field Dosimetry"** Isfahan Milad Hospital & PTW, Isfahan, Iran.
2014, 2 Days **" Dosimetry for Photon Beams in Radiotherapy"** Babolsar Shahid Rajaei Hospital, Babolsar, Iran.
2013, 7 Days **" Quality Control Procedures in Diagnostic Radiology"** Parsian Radiation Dosimetry Services Co., Tehran, Iran.
2013, 1 Day **" Challenges of Dose Verification for New Techniques and Technologies in External X-Ray Beam Therapy"** ESTRO, Geneva, Switzerland.
2010, 2 Days " **Quality Assurance in Radiotherapy with Emphasis on Preventing Unintended Exposure**" IAEA, Tehran, Iran.
2007, 1 Day " **Course Plan"** Rafsanjan University of Medical Sciences, Rafsanjan, Iran.
2007, 2 Days " **Primary of Quality Research Methodology"** Rafsanjan University of Medical Sciences, Rafsanjan, Iran.
2007, 2 Days " **Physics of Medical Accelerators**" Shahidbeheshti University of Medical Sciences, Tehran, Iran.
2006, 3 Days " **Teaching Method, Evaluation Method and Question Planning**" Kerman University of Medical Sciences, Kerman, Iran.
2006, 1 Day " **Educational Objectives & Educational Curriculum**" Rafsanjan University of Medical Sciences, Rafsanjan, Iran.
2006, 2 Days " **Scientific and Educational Advisory** " Yazd University of Medical Sciences, Yazd, Iran.
2006, 1 Day "**Medical Ethics**" TUMS, Tehran, Iran.
2006, 2 Days " **Revolution an Medical Education**" Shahidbeheshti University of Medical Sciences, Tehran, Iran.
2006, 2 Days " **Scientific Writing**" Iran University of Medical Sciences, Tehran, Iran.
2006, 1 Day " **Primary Statistics & Research Methodology**" Mazandaran University of Medical Sciences, Sari, Iran.
2006, 1 Day " **Advanced Statistics & Research Methodology**" Mazandaran University of Medical Sciences, Sari, Iran.
2006, 1 Day " **Electronic Resources**" Mashhad University of Medical Sciences, Mashhad, Iran.
2005, 2 Days " **Article Writing in English**" HUMS, Bandaabbas, Iran.
2005, 2 Days " **Analyzing & Standardization of Questions**" HUMS, Bandaabbas, Iran.
2005, 3 Days " **Advanced Article Writing in English** " HUMS, Bandaabbas, Iran.
2005, 2 Days " **Quality Control of Imaging Systems**" Shahidbeheshti University of Medical Sciences, Tehran, Iran.
2004, 2 Days "**Power Point Education Course"** HUMS, Bandaabbas, Iran.
2004, 1 Day " **Printer & Scanner Education Course**" HUMS, Bandaabbas, Iran.
2004, 1 Day " **Course Plan & Course Scheduling**" HUMS, Bandaabbas, Iran.

**Clinical:**
 Medical Physicist, Shafa Kerman Hospital, Kerman, Iran, 2015-Present.
 Visiting Scholar (Medical Physicist), EPID Dosimetry Group, Radiation Oncology Dept, The Netherlands Cancer Institute- Antoni van Leeuwenhoek Hospital (NKI-AVL), Amsterdam, The Netherlands, 2012-2013.
 Medical Physicist, Milad Hospital, Isfahan, Iran, 2010-2012.
 Medical Physicist, Seyedolshohada Hospital, Isfahan, Iran, 2009-2010.

## Academic Activities

 American Association of Physicist in Medicine (AAPM), Member, 2012-Present.
 European Society for Radiotherapy and Oncology (ESTRO), Member, 2013-Present.
 Iranian Association of Medical Physics, Member, 2003 - Present.
 Iranian Nuclear society, Member, 2006 - Present.
 Reviewer of Hormozgan Medical Journal.
 Reviewer of Rafsanjan University of Medical Sciences Journal.
 Reviewer of Iranian Journal of Medical Physics (IJMP).
 Reviewer of International Journal of Radiation Research (IJRR).
 Reviewer of Journal of Reports in Pharmaceutical Sciences (JRPS).

## Scientific-Executive Records

 2004-2007, Educational Advisor of Radiology Students, Hormozgan University of Medical Sciences.

 2004-2007, Management of General Physics Lab, Hormozgan University of Medical Sciences.
 2004- 2007, Management of Applied Physics Lab, Hormozgan University of Medical Sciences.
 2006- 2007, EDO management of Nursing & Midwifery School, Hormozgan University of Medical Sciences.
 2006-2007, Responsible of Faculty Member Employment at Nursing & Midwifery School, Hormozgan University of Medical Sciences.
 2007- 2008, Educational Advisor of Radiology Students, Rafsanjan University of Medical Sciences.

 2007-2008, Health Physics Management at Dental School, Rafsanjan University of Medical Sciences.
 2007-2009, President of Health Physics Center, Rafsanjan University of Medical Sciences.
 2007-2009, President of Elite Center, Rafsanjan University of Medical Sciences.
 2007-2009, Vice President of EDC, Rafsanjan University of Medical Sciences.

## Honors

 Ranked 1st among the PhD students of Medical Physics, Isfahan University of Medical Sciences, 2011
 Research Award, Rafsanjan University of Medical Sciences, 2010, (University Level)
 Outstanding Faculty Member Award, Hormozgan University of Medical Sciences, 2005.
 Outstanding Faculty Member Award, Hormozgan University of Medical Sciences, 2006.
 Establishment of General & Applied Physics Lab, Hormozgan University of Medical Sciences, 2005.

## Languages

 **Persian** *(Native)*
 **English** *(fluent in reading and writing and audible understanding)*

## Extracurricular Activities

 **Sport**
Walking
Football