

# Elekta Unity

## Peer-Reviewed Publications

### February 2019

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## General description of MR/RT technology (26)

**The need for, and implementation of, image guidance in radiation therapy.**

**Ann ICRP. 2018;47(3-4):160-76.**

Ibbott GS.

PMID: 29676166 DOI: 10.1177/0146645318764092

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**Magnetic resonance imaging-guided radiation therapy: a short strengths, weaknesses, opportunities, and threats analysis.**

**Int J Radiation Oncol Biol Phys. 2018;101(5):A1-12, 1011-1278.**

van Herk M, McWilliam A, Dubec M, Faivre-Finn C, Choudhury A.

DOI: 10.1016/j.ijrobp.2017.11.009

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**Adaptive radiotherapy enabled by MRI guidance.**

**Clin Oncol. 2018;30(11):711-719.**

Hunt A, Hansen VN, Oelfke U, Nill S, Hafeez S.

DOI: 10.1016/j.clon.2018.08.001

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**The challenges of using MRI during radiotherapy.**

**Clin Oncol. 2018;30(11):680-85.**

McWilliam A, Rowland B, van Herk M.

PMID: 30197096 DOI: 10.1016/j.clon.2018.08.004

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**The potential value of mri in external-beam radiotherapy for cervical cancer.**

**Clin Oncol. 2018;30(11):737-50.**

Cree A, Livsey J, Barraclough L, Dubec M, Hambrook T, van Herk M, Choudhury A, McWilliam A.

DOI: 10.1016/j.clon.2018.08.002

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**Magnetic resonance-guided radiotherapy—can we justify more expensive technology?**

**Clin Oncol. 2018;30(11):677-750.**

Tree AC, Huddart R, Choudhury A.

PMID: 30217480 DOI: 10.1016/j.clon.2018.08.013

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**Magnetic resonance imaging-guided adaptive radiotherapy: a “game changer” for prostate treatment?**

**Int J Radiation Oncol Biol Phys. 2018;100(2):361-73.**

Pathmanathan AU, van As NJ, Kerkmeijer LGW, Christodouleas J, Lawton CAF, Vesprini D, van der Heide UA, Frank SJ, Nill S, Oelfke U, van Herk M, Li XA, Mittauer K, Ritter M, Choudhury A, Tree AC.

PMID: 29353654 DOI: 10.1016/j.ijrobp.2017.10.020

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**The future of image-guided radiotherapy will be MR-guided.**

**Br J Radiol. 2017;90(1073):20160667.**

Pollard JM, Wen Z, Sadagopan R, Wang J, Ibbott GS.

PMID: 28256898 DOI: 10.1259/bjr.20160667

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**MRI-guided lung SBRT: present and future developments.**

**Phys Med. 2017;44:139-49.**

Menten MJ, Wetscherek A, Fast MF.

PMID: 28242140 DOI: 10.1016/j.ejmp.2017.02.003

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**MR-guided radiation therapy: transformative technology and its role in the central nervous system.**

**Neuro Oncol. 2017;19(Suppl):ii16-ii29.**

Cao Y, Tseng CL, Balter JM, Teng F, Parmar HA, Sahgal A.

PMID: 28380637 DOI: 10.1093/neuonc/nox006

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**MR-guided online adaptive therapy.**

**Oncol Times. 2017;39(8):13-14.**

Christodouleas J.

DOI: 10.1097/01.COT.0000516143.51689.1e

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**Magnetic resonance imaging in precision radiation therapy for lung cancer.**

**Transl Lung Cancer Res. 2017;6(6):689-707.**

Bainbridge H, Salem A, Tijssen RHN, Dubec M, Wetscherek A, Van Es C, Belderbos J, Faivre-Finn C, McDonald F.

PMID: 29218271 DOI: 10.21037/tlcr.2017.09.02

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**The future of image-guided radiotherapy.**

**Clin Oncol. 2017;29(10):662-66.**

Choudhury A, Budgell G, MacKay R, Falk S,

Faivre-Finn C, Dubec M, van Herk M, McWilliam A.

PMID: 28511968 DOI: 10.1016/j.clon.2017.04.036

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**Online adaptive radiation therapy.**

**Int J Radiat Oncol Biol Phys.** 2017;99(4):994–1003.

Lim-Reinders S, Keller BM, Al-Ward S, Sahgal A, Kim A.  
PMID: 28916139 DOI: 10.1016/j.ijrobp.2017.04.023

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**The emerging potential of magnetic resonance imaging in personalizing radiotherapy for head and neck cancer: an oncologist's perspective.**

**Br J Radiol.** 2017;90(1071):20160768.

Wong KH, Panek R, Bhide SA, Nutting CM, Harrington KJ, Newbold KL.  
PMID: 28256151 DOI: 10.1259/bjr.20160768

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**MR-guided radiation therapy.**

**Phys Med.** 2016;32(Suppl):175.

van der Heide UA.  
DOI: 10.1016/j.ejmp.2016.07.284

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**MRI-guided prostate adaptive radiotherapy—a systematic review.**

**Radiother Oncol.** 2016;119(3):371–380.

McPartlin AJ, Li XA, Kershaw LE, Heide U, Kerkmeijer L, Lawton C, Mahmood U, Pos F, van As N, van Herk M, Vesprini D, van der Voort van Zyp J, Tree A, Choudhury A.  
PMID: 27162159 DOI: 10.1016/j.radonc.2016.04.014

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**Magnetic resonance imaging-guided radiation therapy: technological innovation provides a new vision of radiation oncology practice.**

**Clin Oncol.** 2015;27(9):495–497.

Oelfke U.  
PMID: 25960321 DOI: 10.1016/j.clon.2015.04.004

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**MR guidance in radiotherapy.**

**Phys Med Biol.** 2014;59(21):R349–369.

Lagendijk JJ, Raaymakers BW, Van den Berg CA, Moerland MA, Philippens ME, van Vulpen M.  
PMID: 25322150 DOI: 10.1088/0031-9155/59/21/R349

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**The magnetic resonance imaging–linac system.**

**Semin Radiat Oncol.** 2014;24(3):207–209.

Lagendijk JJ, Raaymakers BW, van Vulpen M.  
PMID: 24931095 DOI: 10.1016/j.semradonc.2014.02.009

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**Introduction: Systems for magnetic resonance image guided radiation therapy.**

**Semin Radiat Oncol.** 2014;24(3):192.

Menard C, van der Heide U.  
PMID: 24931090 DOI: 10.1016/j.semradonc.2014.02.010

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**Integrating a 1.5T MRI scanner with a 6 MV accelerator: proof of concept.**

**Phys Med Biol.** 2009;54(12):N229–237.

Raaymakers BW, Lagendijk JJ, Overweg J, Kok JG, Raaijmakers AJ, Kerkhof EM, van der Put RW, Meijsing I, Crijns SP, Benedosso F, van Vulpen M, de Graaff CH, Allen J, Brown KJ.  
PMID: 19451689 DOI: 10.1088/0031-9155/54/12/N01

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**MRI/linac integration.**

**Radiother Oncol.** 2008;86(1):25–29.

Lagendijk JJ, Raaymakers BW, Raaijmakers AJ, Overweg J, Brown KJ, Kerkhof EM, van der Put RW, Hardemark B, van Vulpen M, van der Heide UA.  
PMID: 18023488 DOI: 10.1016/j.radonc.2007.10.034

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**Integrating a MRI scanner with a radiotherapy accelerator: a new concept of precise on line radiotherapy guidance and treatment monitoring.**

**Phys Med Biol.** 2004;49(17):89–92.

Raaymakers BW, Lagendijk JJ, van der Heide UA, Overweg J, Brown K, Topolnjak R, Dehnad H, Jürgenliemk-Schulz IM, Welleweerd J, Bakker CJG.  
DOI: 10.1088/0031-9155/49/17/019/meta

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**MRI guided radiotherapy: MRI as position verification system for IMRT.**

**Radiother Oncol.** 2002;64(Suppl):S75–S76.

Raaymakers BW, Lagendijk JJ, van der Heide UA, Overweg J, Brown K, Topolnjak R, Dehnad H, Jürgenliemk-Schulz IM, Welleweerd J, Bakker CJG.  
DOI: 10.1016/S0167-8140(02)82541-5

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**MRI guided radiotherapy: a MRI based linear accelerator.**

**Radiother Oncol.** 2000;56(Suppl):S60.

Lagendijk JJ, Bakker CJG.  
DOI: doi.org/10.1016/S0167-8140(00)81503-0

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## Clinical implementation (14)

**Feasibility of stereotactic radiotherapy using a 1.5 T MR-linac: Multi-fraction treatment of pelvic lymph node oligometastases.**

**Radiother Oncol. 2019;143:50-54.**

Werensteijn-Honingh AM, Kroon PS, Winkel D, Aalbers EM, van Asselen B, Bol GH, Brown KJ, Eppinga WSC, van Es CA, Glitzner M, de Groot-van Breugel EN, Hackett SL, Intven M, Kok JGM, Kontaxis C, Kotte AN, Lagendijk JJW, Philippens MEP, Tijssen RHN, Wolthaus JWH, Woodings SJ, Raaymakers BW, Jürgenliemk-Schulz IM.

DOI: 10.1016/j.radonc.2019.01.024

**Plan quality for high-risk prostate cancer treated with high field magnetic resonance imaging guided radiotherapy.**

**phiRO. 2018;7:1-8.**

Christiansen RL, Hansen CR, Dahlrot RH.

DOI: 10.1016/j.phro.2018.06.006

**Radiation-induced lung toxicity in mice irradiated in a strong magnetic field.**

**PLoS One. 2018;13(11):e0205803.**

Rubinstein AE, Gay S, Peterson CB, Kingsley CV, Tailor RC, Pollard-Larkin JM, Melancon AD, Followill DS, Court LE.

PMID: 30444887 DOI: 10.1371/journal.pone.0205803

**Magnetic Resonance-based Response Assessment and Dose Adaptation in Human Papilloma Virus Positive Tumors of the Oropharynx treated with Radiotherapy (MR-ADAPTOR): An R-IDEAL stage 2a-2b/Bayesian phase II trial.**

**Clin Transl Radiat Oncol. 2018;13:19-23.**

Bahig H, Yuan Y, Mohamed ASR, Brock KK, Sweet, Ng P, Wang J, Ding Y, Hutcheson K, McCulloch M, Balter PA, Lai S, Al-Mamgani A, Heukelom J, Sonke J-J, van der Heide UA, Nutting C, Li XA, Robbins J, Mussadiq A, Karam I, Newbold K, Harrington K, Oelfke U, Bhide S, Philippens MEP, Terhaard CHJ, McPartlin AJ, Blanchard P, Garden AS, Rosenthal DI, Gunn GB, Phan J, Cazoulat G, Aristophanous M, McSpadden KK, Garcia J, van den Berg CAT, Raaijmakers CPJ, Kerkmeijer L, Doornaert P, Blinde S, Frank SJ, Fuller CD.

DOI: 10.1016/j.ctro.2018.08.003

**Comparison of treatment plans for a high-field MRI-linac and a conventional linac for esophageal cancer.**

**Strahlenther Onkol. 2018;Oct 25:1-8.**

Nachbar M, Monnich D, Kalwa P, Zips D, Thorwarth D, Gani C.

PMID: 30361744 DOI: 10.1007/s00066-018-1386-z

**Pancreatic gross tumor volume contouring on computed tomography (CT) compared with magnetic resonance imaging (MRI): results of an international contouring conference.**

**Pract Radiat Oncol. 2018;8(2):107-115.**

Hall WA, Heerkens HD, Paulson ES, Meijer GJ, Kotte AN, Knechtges P, Parikh PJ, Bassetti MF, Lee P, Aitken KL, Palta M, Myrehaug S, Koay EJ, Portelance L, Ben-Josef E, Erickson BA.

PMID: 29426692 DOI: 10.1016/j.prro.2017.11.005

**Target volume delineation using diffusion-weighted imaging for MR-guided radiotherapy: a case series of laryngeal cancer validated by pathology.**

**Cureus. 2018;10(4):e2465.**

Ligtenberg H, Schakel T, Dankbaar JW, Ruiter JN, Peltenburg B, Willems SM, Kasperts N, Terhaard CHJ, Raaijmakers CPJ, Philippens MEP.

DOI: 10.7759/cureus.2465

**First patients treated with a 1.5 T MRI-linac: clinical proof of concept of a high-precision, high-field MRI guided radiotherapy treatment.**

**Phys Med Biol. 2017;62(23):L41-L50.**

Raaymakers BW, Jurgenliemk-Schulz IM, Bol GH, Glitzner M, Kotte ANTJ, van Asselen B, de Boer JCJ, Bluemink JJ, Hackett SL, Moerland MA, Woodings SJ, Wolthaus JWH, van Zijp HM, Philippens MEP, Tijssen R, Kok JGM, de Groot-van Breugel EN, Kiekebosch I, Meijers LTC, Nomden CN, Sikkens GG, Doornaert PAH, Eppinga WSC, Kasperts N, Kerkmeijer LGW, Tersteeg JHA, Brown KJ, Pais B, Woodhead P, Lagendijk JJ.

PMID: 29135471 DOI: 10.1088/1361-6560/aa9517

**Using the Malthus programme to predict the recruitment of patients to MR-linac research trials in prostate and lung cancer.**

**Radiother Oncol. 2017;122(1):159-162.**

Sanderson B, McWilliam A, Faivre-Finn C, Kirkby NF, Jena R, Mee T, Choudhury A.

PMID: 27939554 DOI: 10.1016/j.radonc.2016.11.014

**Recommendations for MRI-based contouring of gross tumor volume and organs at risk for radiation therapy of pancreatic cancer.**

**Pract Radiat Oncol. 2017;7(2):126-136.**

Heerkens HD, Hall WA, Li XA, Knechtges P, Dalah E, Paulson ES, van den Berg CA, Meijer GJ, Koay EJ, Crane CH, Aitken K, van Vulpen M, Erickson BA.

PMID: 28089481 DOI: 10.1016/j.prro.2016.10.006

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**R-IDEAL: a framework for systematic clinical evaluation of technical innovations in radiation oncology.**

**Front Oncol. 2017;7:59.**

Verkooijen HM, Kerkmeijer LGW, Fuller CD, Huddart R, Faivre-Finn C, Verheij M, Mook S, Sahgal A, Hall E, Schultz C.

PMID: 28421162 DOI: 10.3389/fonc.2017.00059

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**Biological responses of human solid tumor cells to X-ray irradiation within a 1.5-Tesla magnetic field generated by a magnetic resonance imaging-linear accelerator.**

**Bioelectromagnetics. 2016;37(7):471–480.**

Wang L, Hoogcarspel SJ, Wen Z, van Vulpen M, Molkentine DP, Kok J, Lin SH, Broekhuizen R, Ang KK, Bovenschen N, Raaymakers BW, Frank SJ.

PMID: 27434783 DOI: 10.1002/bem.21991

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**The development of the MRI linac system for online MRI-guided radiotherapy: a clinical update.**

**J Intern Med. 2016;280(2):203–208.**

Legendijk JJ, van Vulpen M, Raaymakers BW.

PMID: 27197553 DOI: 10.1111/joim.12516

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**The MRI-linear accelerator consortium: evidencebased clinical introduction of an innovation in radiation oncology connecting researchers, methodology, data collection, quality assurance, and technical development.**

**Front Oncol. 2016;6:215.**

Kerkmeijer LG, Fuller CD, Verkooijen HM, Verheij M, Choudhury A, Harrington KJ, Schultz C, Sahgal A, Frank SJ, Goldwein J, Brown KJ, Minsky BD, van Vulpen M.

PMID: 27790408 DOI: 10.3389/fonc.2016.00215

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## MR imaging (25)

**MRI commissioning of 1.5 T MR-linac systems—a multi-institutional study.**

**Radiother Oncol. 2019.**

Tijssen RHN, Philippens MEP, Paulson ES.

DOI: 10.1016/j.radonc.2018.12.011

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**Super-resolution T2-weighted 4D MRI for image guided radiotherapy.**

**Radiother Oncol. 2018;129(3):486–93.**

Freedman JN, Collins DJ, Gurney-Champion OJ.

DOI: 10.1016/j.radonc.2018.05.015

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**A self-sorting coronal 4D-MRI method for daily image guidance of liver lesions on an MR-linac.**

**Int J Radiation Oncol Biol Phys. 2018;127(3):474–480.**

van de Lindt TN, Sonke JJ, Nowee ME, Jansen EPM, van Pelt VWJ, van der Heide UA, Fast MF.

DOI: 10.1016/j.ijrobp.2018.05.029

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**Retrospective self-sorted 4D-MRI for the liver.**

**Radiother Oncol. 2018;127(3):474–480.**

van de Lindt TN, Fast MF, van der Heide UA, Sonke J-J.

DOI: 10.1016/j.radonc.2018.05.006

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**MR-only brain radiotherapy: dosimetric evaluation of synthetic CTs generated by a dilated convolutional neural network.**

**Int J Radiation Oncol Biol Phys. 2018;102(4):801–812.**

Dinkla AM, Wolterink JM, Maspero M, Savenije M.H.F, Verhoeff J J.C., Seravalli E, Seevinck P.R, van den Berg C A.T.

DOI: 10.1016/j.ijrobp.2018.05.058

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**Simultaneous orthogonal plane cine imaging with balanced steady-state free-precession contrast using k-t GRAPPA.**

**Phys Med Biol. 2018;63(15).**

Mickevicius NJ, Paulson ES.

PMID: 29956676 DOI: 10.1088/1361-6560/aad008

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**Characterization of imaging latency for real-time MRI-guided radiotherapy.**

**Phys Med Biol. 2018;63(15).**

Borman PTS, Tijssen RHN, Bos C, Moonen CTW, Raaymakers BW, Glitzner M.

PMID: 29995645 DOI: 10.1088/1361-6560/aad2b7

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**Emerging magnetic resonance imaging technologies for radiation therapy planning and response assessment.**

**Int J Radiat Oncol Biol Phys.** 2018;101(5):1046-1056.

Jones KM, Michel KA, Bankson JA, Fuller CD, Klopp AH, Venkatesan AM.

PMID: 30012524 DOI: 10.1016/j.ijrobp.2018.03.028

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**Dose evaluation of fast synthetic-CT generation using a generative adversarial network for general pelvis MR-only radiotherapy.**

**Phys Med Biol.** 2018;63(18).

Maspero M, Savenije MHF, Dinkla AM, Seevinck PR, Intven MPW, Juergenliemk-Schulz IM, Kerkmeijer LGW, Van den Berg CAT.

PMID: 30109989 DOI: 10.1088/1361-6560/aada6d

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**Delivering functional imaging on the MRI-linac: current challenges and potential solutions.**

**Clin Oncol (R Coll Radiol).** 2018;30(11):702-10.

Datta A, Aznar MC, Dubec M, Parker GJM, O'Connor JPB.

PMID: 30224203 DOI: 10.1016/j.clon.2018.08.005

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**Magnetic resonance imaging only workflow for radiotherapy simulation and planning in prostate cancer.**

**Clin Oncol (R Coll Radiol).** 2018;30(11):692-701.

Kerkmeijer LGW, Maspero M, Meijer GJ, van der Voort van Zyp JRN, de Boer HCJ, van den Berg CAT.

PMID: 30244830 DOI: 10.1016/j.clon.2018.08.009

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**Nuts and bolts of 4D-MRI for radiotherapy.**

**Phys Med Biol.** 2018;63(21).

Stemkens B, Paulson ES, Tijssen RHN.

PMID: 30272573 DOI: 10.1088/1361-6560/aae56d

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**Emerging MR imaging technologies for radiation therapy planning and response assessment.**

**Int J Radiat Oncol Biol Phys.** 2018 Aug 1;101(5):1046-1056.

Jones KM, Michel KA, Bankson JA, Fuller CD, Klopp AH, Venkatesan AM.

DOI: 10.1016/j.ijrobp.2018.03.028

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**Characterization of the first RF coil dedicated to 1.5T MR guided radiotherapy.**

**Phys Med Biol.** 2018;63(2):025014.

Hoogcarspel SJ, Zijlema SE, Tijssen RHN, Kerkmeijer LGW, Juergenliemk-Schulz IM, Lagendijk JJ, Raaymakers BW.

PMID: 29260729 DOI: 10.1088/1361-6560/aaa303

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**Tumour auto-contouring on 2d cine MRI for locally advanced lung cancer: A comparative study.**

**Radiother Oncol.** 2017; 125(3):485-491.

Fast MF, Eiben B, Menten MJ, Wetscherek A, Hawkes DJ, McClelland JR, Oelfke U.

PMID: 29029832 DOI: 10.1016/j.radonc.2017.09.013

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**Investigation of undersampling and reconstruction algorithm dependence on respiratory correlated 4D-MRI for online MR-guided radiation therapy.**

**Phys Med Biol.** 2017;62(8):2910-2921.

Mickevicius NJ, Paulson ES.

PMID: 27997382 DOI: 10.1088/1361-6560/aa54f2

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**T2-weighted 4D magnetic resonance imaging for application in magnetic resonance-guided radiotherapy treatment planning.**

**Invest Radiol.** 2017;52(10):563-573.

Freedman JN, Collins DJ, Bainbridge H, Rank CM, Nill S, Kachelriess M, Oelfke U, Leach MO, Wetscherek A.

PMID: 28459800 DOI: 10.1097/RLI.0000000000000381

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**Simultaneous orthogonal plane imaging.**

**Magn Reson Med.** 2017;78(5):1700-1710.

Mickevicius NJ, Paulson ES.

PMID: 27917527 DOI: 10.1002/mrm.26555

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**Spatial precision in magnetic resonance imaging-guided radiation therapy: the role of geometric distortion.**

**Int J Radiat Oncol Biol Phys.** 2016;95(4):1304-1316.

Weygand J, Fuller CD, Ibbott GS, Mohamed AS, Ding Y, Yang J, Hwang KP, Wang J.

PMID: 27354136 DOI: 10.1016/j.ijrobp.2016.02.059

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**Consensus opinion on MRI simulation for external beam radiation treatment planning.**

**Radiother Oncol.** 2016;121(2):187-192.

Paulson ES, Crijns SP, Keller BM, Wang J, Schmidt MA, Coutts G, van der Heide UA.

PMID: 27838146 DOI: 10.1016/j.radonc.2016.09.018

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**On-line 3D motion estimation using low resolution MRI.**

**Phys Med Biol.** 2015;60(16):N301-310.

Glitzner M, de Senneville BD, Lagendijk JJ, Raaymakers BW, Crijns SP.

PMID: 26247427 DOI: 10.1088/0031-9155/60/16/N301

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**From static to dynamic 1.5T MRI-linac prototype: impact of gantry position related magnetic field variation on image fidelity.**

**Phys Med Biol.** 2014;59(13):3241–3247.

Crijns S, Raaymakers B.

PMID: 24874027 DOI: 10.1088/0031-9155/59/13/3241

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**The feasibility of using a conventional flexible RF coil for an online MR-guided radiotherapy treatment.**

**Phys Med Biol.** 2013;58(6):1925–1932.

Hoogcarspel SJ, Crijns SP, Lagendijk JJ, van Vulpen M, Raaymakers BW.

PMID: 23442765 DOI: 10.1088/0031-9155/58/6/1925

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**Towards inherently distortion-free MR images for image-guided radiotherapy on an MRI accelerator.**

**Phys Med Biol.** 2012;57(5):1349–1358.

Crijns SP, Bakker CJ, Seevinck PR, de Leeuw H, Lagendijk JJ, Raaymakers BW.

PMID: 22349351 DOI: 10.1088/0031-9155/57/5/1349

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**Real-time correction of magnetic field inhomogeneity-induced image distortions for MRI-guided conventional and proton radiotherapy.**

**Phys Med Biol.** 2011;56(1):289–297.

Crijns SP, Raaymakers BW, Lagendijk JJ.

PMID: 21149949 DOI: 10.1088/0031-9155/56/1/017

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## Dosimetry (32)

**Commissioning of a water calorimeter as a primary standard for absorbed dose to water in magnetic fields.**

**Phys Med Biol.** 2019;64(3).

de Prez LA, de Pooter JA, Jansen BJ, Woodings SJ, Wolthaus JWH, van Asselen B, van Soest TL, Kok JGM, Raaymakers BW.

PMID: 30561378 DOI: 10.1088/1361-6560/aaf975

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**Assessment of image quality and scatter and leakage radiation of an integrated MR-LINAC system.**

**Med Phys.** 2018;45(3).

Wang J, Yung J, Kadbi M, Hwang K, Ding Y, Ibbott GS.

PMID: 29363770 DOI: 10.1002/mp.12767

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**Ionization chamber correction factors for MR-linacs.**

**Phys Med Biol.** 2018;63(11).

Pojtinger S, Dohm OS, Kapsch RP, Thorwarth D.

PMID: 29762130 DOI: 10.1088/1361-6560/aac4f2

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**A formalism for reference dosimetry in photon beams in the presence of a magnetic field.**

**Phys Med Biol.** 2018;63(12).

van Asselen B, Woodings SJ, Hackett SL, van Soest TL, Kok JGM, Raaymakers BW, Wolthaus JWH.

PMID: 29786612 DOI: 10.1088/1361-6560/aac70e

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**Effect of magnetic field strength on plastic scintillation detector response.**

**Radiat Meas.** 2018;116:10–13.

Therriault-Proulx F, Wen Z, Ibbott G, Beddar S.

DOI: 10.1016/j.radmeas.2018.06.011

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**The characterization of a large multi-axis ionization chamber array in a 1.5 T MRI linac.**

**Phys Med Biol.** 2018;63(22).

Perik TJ, Kaas JJ, Greilich S.

PMID: 30412476 DOI: 10.1088/1361-6560/aae90a

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**Beam characterisation of the 1.5T MRI-linac.**

**Phys Med Biol.** 2018;63(8):085015.

Woodings SJ, Bluemink JJ, de Vries JHW, Niatsetski Y, van Veelen B, Schillings J, Kok JGM, Wolthaus JWH, Hackett SL, van Asselen B, van Zijp HM, Pencea S, Roberts DA, Lagendijk JJ, Raaymakers BW.

PMID: 29521280 DOI: 10.1088/1361-6560/aab566

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**Characterization of the a-Si EPID in the unity MR-linac for dosimetric applications.**

**Phys Med Biol.** 2018;63(2):025006.

Torres-Xirau I, Olaciregui-Ruiz I, Baldvinsson G, Mijnheer BJ, van der Heide UA, Mans A.

PMID: 29182153 DOI: 10.1088/1361-6560/aa9dbf

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**Performance of a PTW 60019 microDiamond detector in a 1.5T MRI-linac.**

**Phys Med Biol.** 2018;63(5):05NT04

Woodings SJ, Wolthaus JWH, van Asselen B, de Vries JHW, Kok JGM, Lagendijk JJ, Raaymakers BW.

PMID: 29239857 DOI: 10.1088/1361-6560/aaa1c6

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**Real-time volumetric relative dosimetry for magnetic resonance-image-guided radiation therapy (MR-IGRT).**

**Phys Med Biol.** 2018;63(4):045021

Lee HJ, Kadbi M, Bosco G, Ibbott GS.

PMID: 29384731 DOI: 10.1088/1361-6560/aaac22

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**Investigating the effect of a magnetic field on dose distributions at phantom-air interfaces using PRESAGE® 3D dosimeter and Monte Carlo simulations.**

**Phys Med Biol.** 2018;63(5):05NT01.

Costa F, Doran SJ, Hanson IM, Nill S, Billas I, Shipley DR, Duane S, Adamovics J, Oelfke U.

PMID: 29393066 DOI: 10.1088/1361-6560/aaaca2

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**Relative dosimetry with an MR-linac: response of ion chambers, diamond, and diode detectors for offaxis, depth dose, and output factor measurements.**

**Med Phys.** 2018;45(2):884–897.

O'Brien DJ, Dolan J, Pencea S, Schupp N, Sawakuchi GO.

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