Sonja Dieterich, Ph.D., M.B.A.

Clinical Interests	Dr. Dieterich is a medical physicist who specializes in brachytherapy, stereotactic radiosurgery and patient safety.
Research/Academic Interests	Dr. Dieterich focuses on safety engineering for special procedures with a focus on complex processes. She also has an interest in translational research in conjunction with Veterinary Radiation Oncology.
Title	Co-Director, Physics Residency Professor
Specialty	Radiology Physics
Department	Radiation Oncology
Division	Radiation Oncology
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Address/Phone	UC Davis Comprehensive Cancer Center, 4501 X St. Sacramento, CA 95817 **Phone:** 800-362-5566
Additional Phone	Phone: 916-734-5810
Languages	German
Education	Ph.D., Nuclear Physics, Rutgers University, New Brunswick NJ 2002 M.S., Physics, Technical University, Darmstadt, Hessen, Germany 1998 M.B.A., Finance, UC Davis, Davis CA 2019 B.S., Physics, Technical University, Darmstadt, Hessen, Germany 1995
Fellowships	Radiation Medicine, Georgetown University, Washington D.C. 2002 Radiation Oncology, Georgetown University Hospital, Washington D.C. 2002-2003
Board Certifications	American Board of Radiology, Therapeutic Radiological Physics Wilderness First Responder
Professional Memberships	American Association of Physicists in Medicine (AAPM) American Brachytherapy Society American Society of Therapeutic Radiation Oncology (ASTRO)
Honors and Awards	Fellow of the American Association of Physicists in Medicine, 2015

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Sonja Dieterich, Ph.D., M.B.A.

FDA, "Certificate for Outstanding Contribution on Promoting Patient Safety with Medical Devices", 2010

AAPM Medical Physics Travel Award, 2007

Select Recent Publications

Link to other publications:
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Mechalakos JG, Dieterich S, Fong de Los Santos LE, Fontenla SC, Hanley J, Harwalkar VA, Hong LX, Huang YJ, Kim GG, Richardson SL, Sutlief SG, Yaddanapudi S, Merkel S, Parry M. Electronic charting of radiation therapy planning and treatment: Report of Task Group 262. Med Phys. 2021 Nov;48(11):e927-e968. doi:10.1002/mp.15116. Epub 2021 Aug 18. PMID:34287961.

Keall PJ, Sawant A, Berbeco RI, Booth JT, Cho B, Cerviño LI, Cirino E, Dieterich S, Fast MF, Greer PB, Munck Af Rosenschöld P, Parikh PJ, Poulsen PR, Santanam L, Sherouse GW, Shi J, Stathakis S. AAPM Task Group 264: The safe clinical implementation of MLC tracking in radiotherapy. Med Phys. 2021 May;48(5):e44-e64. doi:10.1002/mp.14625. Epub 2021 Mar 23. PMID:33260251.

Dieterich S, Green O, Booth J. SBRT targets that move with respiration. Phys Med. 2018 Dec;56: 19-24. doi:10.1016/j.ejmp.2018.10.021. Epub 2018 Nov 17. PMID:30527085.

Ford E, Dieterich S. Safety Considerations in Stereotactic Body Radiation Therapy. Semin Radiat Oncol. 2017 Jul;27(3):190-196. doi:10.1016/j.semradonc.2017.02.003. Epub 2017 Feb 20. PMID: 28577826.

Dieterich S, Zwingenberger A, Hansen K, Pfeiffer I, Théon A, Kent MS. INTER- AND INTRAFRACTION MOTION FOR STEREOTACTIC RADIOSURGERY IN DOGS AND CATS USING A MODIFIED BRAINLAB FRAMELESS STEREOTACTIC MASK SYSTEM. Vet Radiol Ultrasound. 2015 Sep-Oct;56(5):563-9. doi:10.1111/vru.12271. Epub 2015 Jun 25. PMID: 26118737.

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Dieterich S, Sherouse GW. Experimental comparison of seven commercial dosimetry diodes for measurement of stereotactic radiosurgery cone factors. Med Phys. 2011 Jul;38(7):4166-73. doi: 10.1118/1.3592647. PMID:21859018.

Dieterich S, Cavedon C, Chuang CF, Cohen AB, Garrett JA, Lee CL, Lowenstein JR, d'Souza MF, Taylor DD Jr, Wu X, Yu C. Report of AAPM TG 135: quality assurance for robotic radiosurgery. Med Phys. 2011 Jun;38(6):2914-36. doi:10.1118/1.3579139. Erratum in: Med Phys. 2011 Sep;38 (9):5264. PMID:21815366.

Dieterich S, Mun SK (eds). AI in Radiation Oncology, World Scientific Publishing, Boston MA. 2022.

Dieterich S, Ford E, Dan Pavord D, Jing Z (eds). Practical Radiation Oncology Physics: A Companion to Gunderson %26amp%3B Tepper's Clinical Radiation Oncology, Elsevier Health Sciences. 2015

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