Selected Publications

TABLE OF CONTENTS

Clinical

1. General

Clinical use of intensity-modulated radiotherapy: part I
The British Journal of Radiology, 77 (2004), 88–96

Clinical use of intensity-modulated radiotherapy: part II
The British Journal of Radiology, 77 (2004), 177–182

2. Brain / spine

Intensity-Modulated Radiosurgery: Improving Dose Gradients and Maximum Dose Using Post Inverse-Optimization Interactive Dose Shaping.
Technology in Cancer Research and Treatment, 6:3 (2007), 197–203.

Intensity-Modulated Radiosurgery for Patients with Brain Metastases: A Mature Outcomes Analysis
Technology in Cancer Research and Treatment, 6:3 (2007), 161–167.

Comparison of intensity-modulated radiosurgery with gamma knife radiosurgery for challenging skull base lesions
Int. J. Radiation Oncology Biol. Phys., 55:1 (2003) 99-109.

Hypofractionation regimens for stereotactic radiotherapy for large brain tumors
Int. J. Radiation Oncology Biol. Phys., 72:2 (2008) 390-397.

Intensity-modulated radiosurgery for childhood arteriovenous malformations
Acta Neurochir (Wien), 147 (2005) 1141–1150.

Intensity-modulated radiotherapy for pituitary adenomas: the preliminary report of the cleveland clinic experience
Int. J. Radiation Oncology Biol. Phys., 72:2 (2007) 232-239.

Intensity-modulated Radiation Therapy for Children with Intraocular Retinoblastoma: Potential Sparing of the Bony Orbit
Clinical Oncology, 16 (2004) 215–222.

Intensity Modulated Radiation Therapy for Optic Nerve Sheath Meningioma
Int. J. Radiation Oncology Biol. Phys., 60, (2004), S315-S315.

Stereotactic Radiotherapy of Central Nervous System and Head and Neck Lesions, Using a Conformal Intensity-Modulated Radiotherapy System (Peacock System)
Skull Base, 11:2 (2001) 109-119.

Image-guided procedures for intensity-modulated spinal radiosurgery
J Neurosurg 101 (2004), 419–424.

Conformal radiotherapy of challenging paraspinal tumors using a multiple arc segment technique
Int. J. Radiation Oncology Biol. Phys., 48:4 (2000), 1197–1204.

Comparison of intensity-modulated radiotherapy with conventional conformal radiotherapy for complex-shaped tumors
Int. J. Radiation Oncology Biol. Phys., Vol. 48:5 (2000), 1371–1380.

Stereotactic body radiosurgery for spinal metastases: a critical review,
Int. J. Radiation Oncology Biol. Phys., 71:3 (2008), 652–665.

Radiation and intensity modulated radiotherapy for metastatic spine tumors,
Neurosurg Clin. N. Am., 15 (2004), 481-490.

3. Head and Neck

Intensity-modulated Chemoradiation for Treatment of Stage III and IV Oropharyngeal Carcinoma The University of California–San Francisco Experience
Cancer 113:3 (2008), 497-507.

Intensity-modulated Radiation Therapy for Head and Neck Cancer
Current Treatment Options in Oncology 5 (2004), 3–9.

Intensity-Modulated Radiotherapy for Early-Stage Nasopharyngeal Carcinoma: A Prospective Study on Disease Control and Preservation of Salivary Function
Cancer 101:7 (2004), 1584-1593.

Improvement of Treatment Plans Developed with Intensity-modulated Radiation Therapy for Concave-shaped Head and Neck Tumors
Radiology 223:1(2002), 57-64.

Intensity-modulated radiation therapy for malignancies of the nasal cavity and paranasal sinuses
Int. J. Radiation Oncology Biol. Phys., 67:1 (2007), 151–157.

Intensity-modulated radiation treatment for head-and-neck squamous cell carcinoma—the university of iowa experience
Int. J. Radiation Oncology Biol. Phys., 63:2 (2005), 410–421.

Health-related quality-of-life outcomes following imrt versus conventional radiotherapy for oropharyngeal squamous cell carcinoma
Int. J. Radiation Oncology Biol. Phys., 69:5 (2007), 1354–1360.

Dosimetric predictors of xerostomia for head-and-neck cancer patients treated with the smart (simultaneous modulated accelerated radiation therapy) boost technique
Int. J. Radiation Oncology Biol. Phys., 56:1 (2003), 136–144.

Simultaneous modulated accelerated radiation therapy in the treatment of nasopharyngeal cancer: a local center's experience
Int. J. Radiation Oncology Biol. Phys., 66:4 (2006), S40–S46.

In vivo dose perturbation effects of metallic dental alloys during head and neck irradiation with intensity modulated radiation therapy
Oral Oncology, 40 (2004), 645–648.

4. Prostate

An analysis of erectile function after intensity modulated radiation therapy for localized prostate carcinoma
Prostate Cancer and Prostatic Diseases 10 (2007), 189–193.

Advantages of using noncoplanar vs. axial beam arrangements when treating prostate cancer with intensity-modulated radiation therapy and the step-and-shoot delivery method
Int. J. Radiation Oncology Biol. Phys., 53:1 (2002), 236–243.

Intensity-modulated radiotherapy improves lymph node coverage and dose to critical structures compared with three-dimensional conformal radiation therapy in clinically localized prostate cancer
Int. J. Radiation Oncology Biol. Phys., 66:3 (2006), 654–662.

Influence of Intensity-Modulated Radiotherapy on Acute Genitourinary and Gastrointestinal Toxicity in the Treatment of Localized Prostate Cancer
Technology in Cancer Research & Treatment, 6:1 (2007), 11-15.

Intensity-modulated radiotherapy improves lymph node coverage and dose to critical structures compared with hree-dimensional conformal radiation therapy in clinically localized prostate cancer
Int. J. Radiation Oncology Biol. Phys., 66:3 (2006), 654–662.

5. Lung

Stereotactic body radiation therapy for centrally located lung lesions
Acta Oncologica, 45 (2006). 802-807.

Promising Early Local Control of Malignant Pleural Mesothelioma Following Postoperative Intensity Modulated Radiotherapy (IMRT) to the Chest
The Cancer Journal 9:6 (2003), 476-484.

6. Gastric

Imrt for postoperative treatment of gastric cancer: covering large target volumes in the upper abdomen: a comparison of a step-and-shoot and an arc therapy approach
Int. J. Radiation Oncology Biol. Phys., 59:4 (2004) 1236–1244

7. Gynecologic

Conventional 3D conformal versus intensity-modulated radiotherapy for the adjuvant treatment of gynecologic malignancies: a comparative dosimetric study of dose–volume histograms
Gynecologic Oncology, 91 (2003) 39–45.

Effects of field parameters on IMRT plan quality for gynecological cancer: A case study
Journal of Applied Clinical Medical Physics, 6:3 (2005)

8. Pancreatic

Intensity-modulated radiotherapy (imrt) and concurrent capecitabine for pancreatic cancer,
Int. J. Radiation Oncology Biol. Phys., 59:2 (2004), 454–459.

Intensity-modulated radiotherapy in treatment of pancreatic and bile duct malignancies: toxicity and clinical outcome
Int. J. Radiation Oncology Biol. Phys., 59:2 (2004), 445–453.

9. Breast

Effect of respiratory motion on the delivery of breast radiotherapy using SMLC intensity modulation
Medical Physics, 34:1 (2007), 347-351.

10. Scalp
Treatment of extensive scalp lesions with segmental intensity-modulated photon therapy
Int. J. Radiation Oncology Biol. Phys., 62:5 (2005), 1549–1558.

Technology

1. Corvus Treatment Planning System

Real-Time Isodose Sculpting, CDVH Manipulation, and Delivery Efficiency Control in IMRT
Med. Phys. 32, 1896 (2005)

A Comparison of Simulated Annealing and Gradient Descent Optimization Algorithms in IMRT
Radiological Society of North America 2002 Scientific Papers.

Controlling the tradeoff between delivery efficiency and dosimetric fitness in IMRT
American Association of Physicists in Medicine 2002 Works in Progress**.**

Comparing Algorithms for Optimizing Monitor Unit Settings along with Pencil Beam Intensities in IMRT
AAPM 2001 Works in Progress

Contemporary IMRT
S. Webb (2004), 5.

Delivery of intensity modulated radiation therapy using computer controlled multileaf collimators with the CORVUS inverse treatment planning system, Proc. 12th Int. Conf. On Computers in Radiotherapy (Utah, May 1997), 394-7.

Preliminary clinical experience with the Peacock intensity modulation 3-D conformal radiation therapy system.
Radiosurgery 1995, 327–335.

An automatic 3D treatment planning and implementation system for optimised conformal therapy by the NOMOS Corporation
Proc. 34th Annual Meeting of the American Society for Therapeutic Radiology and Oncol. (San Diego, 1992)

2. Linac based non-coplanar tomotherapy using nomosSTAT™ / Peacock / MIMiC

Non-coplanar inverse planning IMRT using the MIMiC system: clinical significance in choice of 2-cm/1-cm mode and single couch vs. multiple couch angles
Medical Dosimetry, 26:1 (2001), 11-15.

Tomotherapeutic stereotactic body radiation therapy: Techniques and comparison between modalities
Acta Oncologica, 45 (2006), 953-960.

Contemporary IMRT
S. Webb (2004), 18-25

Validation of a New Serial Tomotherapy IMRT System
Medical Physics, Vol. 34, No. 6, June 2007

3. Focal Therapy / Biological Images

A novel approach to overcome hypoxic tumor resistance: cu-atsm-guided intensity-modulated radiation therapy,
Int. J. Radiation Oncology Biol. Phys., 49:4 (2004), 1171–1182.

MRI-based treatment planning for radiotherapy: dosimetric verification for prostate IMRT
Int. J. Radiation Oncology Biol. Phys., 60:2 (2004), 636–647.

4. TALON® for brain fixation

The talon removable head frame system for stereotactic radiosurgery/radiotherapy: measurement of the repositioning accuracy
Int. J. Radiation Oncology Biol. Phys., 51:2 (2001), 555–562.

5. BEAK (micro-tomotherapy solution)

Analysis of dose conformity and normal-tissue sparing using two different imrt prescription methodologies for irregularly shaped cns lesions irradiated with the beak and 1-cm mimic collimators
Int. J. Radiation Oncology Biol. Phys., 59:1 (2004), 285-292.

Nomos Peacock IMRT utilizing the BEAK® post collimation device
Medical Dosimetry, 26:1 (2001), 37-45.

6. Crane® family of patient positioning products

"The Physics of Radiation Therapy",
F. Khan, 3rd Ed. (2003) 490.

7. BAT patient positioning

Dosimetric consequences of a translational isocenter correction based on image guidance for intensity modulated radiotherapy (IMRT) of the prostate
Phys. Med. Biol. 52 (2007) 5655–5665

Comparing computed tomography localization with daily ultrasound during image-guided radiation therapy for the treatment of prostate cancer: a prospective evaluation
Journal of applied clinical medical physics, 8:3 (2007), 99-110.

Analysis of acute toxicity with use of transabdominal ultrasonography for prostate positioning during intensity-modulated radiotherapy
urology 65:3 (2005), 504- 507.

Evaluation of Possible Prostate Displacement Induced by Pressure Applied during Transabdominal Ultrasound Image Acquisition
Strahlentherapie und Onkologie 182 (2006), 240-246.

Physics

Dosimetric verification of a commercial inverse treatment planning system
Phys. Med. Biol., 44 (1999), 463–478.

Basic concepts of CORVUS dose model
Medical Dosimetry, 26:1 (2001), 65-69.

The field-matching problem as it applies to the peacock three dimensional conformal system for intensity modulation
Int. J. Radiation Oncology Biol. Phys., 34:1 (1996), 183-187.

Measurement and comparison of skin dose for prostate and head-and-neck patients treated on various IMRT delivery systems
Applied Radiation and Isotopes, 66(12) (2008), 1844-1849.

Superficial doses from serial tomotherapy delivery Medical Physics, Vol. 27, No. 1, January 2000

Whole-body dose from tomotherapy delivery
Int. J. Radiation Oncology Biol. Phys., 42:1 (1998), 229-232.

Intensity modulated radiotherapy dose delivery error from radiation field offset inaccuracy
Med. Phys., 27:7 (2000), 1617-1622.

Dose verification in clinical imrt prostate incidents
Int. J. Radiation Oncology Biol. Phys., Vol. 59:5 (2004), 1540–1547.

Research (not yet available in the market)

Novel Application of Serial Tomotherapy Based Intensity Modulated Radiation Therapy to a Cobalt (60Co) Teletherapy System
Med. Phys. 34 (2007), 2474.

A Novel Heterogeneity Inclusive, Pencil-Beam Based Algorithm to Improve Lung IMRT Using the Corvus Planning System
Med. Phys. 33 (2006), 2286.

Dynamic strategy for compensating interfractional errors using post-optimization tools for Adaptive Radiotherapy (ART) of prostate cancer
Strahlenther Onkol., 184:1 (2008), 74.

Adaptive Radiotherapy of Prostate Cancer
Strahlenther Onkol., 183:2 (2007), 45-46.