Closing the loop: fully automated radiotherapy planning for head and neck cancer

Gao, R.

Closing the Loop:
Fully Automated Radiotherapy Planning for Head and Neck Cancer

Ruochen Gao

Colophon

About the cover:

This cover was created with the assistance of ChatGPT 5.5. It was inspired by the aurora that I was fortunate to witness in Abisko, northern Sweden. While the aurora is best known for its spectacular display of light, the interaction between energetic particles and the Earth's atmosphere also produces invisible low-energy X-rays. Unlike these naturally occurring X-rays, those used in radiotherapy are generated and delivered in a controlled manner, allowing them to be precisely shaped to treat cancer while sparing healthy tissue. The luminous VMAT treatment arc is woven into the aurora, creating a visual bridge between nature and medicine. It symbolizes how the same underlying physical principles can, through scientific understanding and engineering, be transformed into technology that improves patient care.

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ISBN: 978-94-6537-839-8
Thesis layout & cover designed by Ruochen Gao
Printed by Ridderprint, the Netherlands

Closing the Loop:
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Proefschrift

ter verkrijging van
de graad van doctor aan de Universiteit Leiden,
op gezag van rector magnificus prof. dr. S. de Rijcke,
volgens besluit van het college voor promoties
te verdedigen op woensdag 16 september 2026
klokke 13.00 uur

door

Ruochen Gao
geboren te Tongling, Anhui, China
in 1996

Promotor:	Prof. dr. ir. M. Staring Prof. dr. ir. B.P.F. Lelieveldt
Co-promotor:	Dr. ir. F.J.W.M. Dankers
Leden promotiecommissie:	Prof. dr. C.R.N. Rasch Prof. dr. ir. P.M.A. van Ooijen *University Medical Center Groningen, Groningen* Prof. dr. ir. C.I. Sánchez Gutiérrez *University of Amsterdam, Amsterdam* Dr. ir. S. Breedveld *Erasmus University Medical Center, Rotterdam*

The research in this thesis was performed at the Division of Image Processing (LKEB), Department of Radiology, Leiden University Medical Center, The Netherlands.
This work was carried out in the ASCI graduate school. ASCI dissertation series number: 484.

Financial support for the publication of this thesis was kindly provided by:
LKEB,
ASCI research school

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