

# Tong Zhang

Peking University Health Science Center, Institute of Medical Technology  
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## EDUCATION

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**M.Sc.** in Radiation Oncology, Peking University, Beijing, China 09/2023 - 06/2026(Expected)  
GPA: 3.22/4.0

Supervisors: Ruoxi Wang, Ph.D., Hao Wu, Professor  
Thesis: Robust Radiotherapy Treatment Planning and Evaluation

**B.Sc.** in Physics, Wuhan University, Wuhan, China 09/2019 - 06/2023  
GPA: 3.77/4.0

Thesis: "Monte Carlo Simulation Study of Dose Calculation in Proton Radiotherapy Based on Dual-Energy Imaging"

## RESEARCH EXPERIENCE

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**Robust Evaluation of Radiotherapy Treatment Plan** 2023 - Present

*Research Assistant, Peking University Cancer Hospital, Peking University, Beijing, China*

*Supervisor: Ruoxi Wang, Ph.D.*

- Developed an automated robustness evaluation tool for photon radiotherapy treatment plans based on Gaussian Process
- Developed a probabilistic robustness evaluation framework based on surrogate models with comprehensive sensitivity analysis for photon radiotherapy treatment plans

**Monte Carlo Simulation of Dose in Proton Radiotherapy Based on Dual-Energy Imaging** 2022 - 2023

*Research Assistant, Department of Physics and Technology, Wuhan University, Wuhan, China*

*Supervisor: Hong Quan, Ph.D.*

- Investigated the accuracy of Monte Carlo simulations of proton dose deposition based on Single-Energy CT and Dual-Energy CT modalities

**Explore the Physical Characteristics of Two-Dimensional Materials** 2021-2022

*Research Assistant, Department of Physics and Technology, Wuhan University, Wuhan China*

*Supervisor: Ti Wang, Ph.D.*

- Fabricated and characterized 2-dimensional MoS<sub>2</sub> - WS<sub>2</sub> material in small-angle heterojunction

## PEER-REVIEWED PUBLICATIONS

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**Submitted to Physics in Medicine and Biology**

**Tong Zhang**, Jiacheng Liu, Kaining Yao, Meijiao Wang, Yi Du, Ruoxi Wang and Hao Wu. (2025) *Probabilistic Sensitivity Analysis on Six-dimensional Setup Errors for Photon Treatment Plans*.

**Submitted to Chinese Journal of Radiological Medicine and Protection**

**Tong Zhang**, Jiacheng Liu, Meijiao Wang, Kaining Yao, Hao Wu and Ruoxi Wang. (2025) *Development and validation of gaussian process-based robustness evaluation tool for 6D setup error in stereotactic radiosurgery treatment planning*.

## CONFERENCE PRESENTATION

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**Tong Zhang(Presenter)**, Jiacheng Liu, Ruoxi Wang and Hao Wu, "Advancing Photon Radiotherapy Plan Robustness Evaluation with Probabilistic Surrogate Models", Vol. 206, Supplement 1 (**ESTRO 2025**, Vienna, Austria), S2734-S2736. **Category: Proffered Paper**

## HONORS AND REWARDS

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**Second Prize in The Chinese Mathematics Competitions (Non-mathematical)**

*Chinese Mathematical Society, China*

2020

**Second-Class Merit Scholarship for Outstanding Student**

*Wuhan University, Wuhan, China*

2020

## REFERENCE

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**Ruoxi Wang, Ph.D.**

Senior Research Engineer

Department of Radiotherapy

Peking University

**Hao Wu, Pr.**

Professor, Director of Radiotherapy

Department of Radiotherapy

Peking University