

# Stanford

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## Gregory Arthur Szalkowski

Clinical Assistant Professor, Radiation Oncology - Radiation Physics

### Bio

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#### ACADEMIC APPOINTMENTS

- Clinical Assistant Professor, Radiation Oncology - Radiation Physics

#### PROFESSIONAL EDUCATION

- Residency, University of North Carolina, Chapel Hill , Radiation oncology physics (2022)
- PhD, Georgia Institute of Technology , Medical Physics (2019)
- BS, Georgia Institute of Technology , Nuclear and Radiological Engineering (2014)

### Research & Scholarship

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#### CURRENT RESEARCH AND SCHOLARLY INTERESTS

Workflow automation, radiotherapy quality assurance, machine learning

### Teaching

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#### COURSES

##### 2023-24

- Medical Physics and Dosimetry: BMP 251, RADO 251 (Aut)
- Physics of Radiation Therapy: BMP 252, RADO 252 (Win)

### Publications

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#### PUBLICATIONS

- **Stereotactic radiosurgery for sarcoma metastases to the brain: a single-institution experience.** *Neurosurgical focus*  
Zamarud, A., Park, D. J., Dadey, D. Y., Yoo, K. H., Marianayagam, N. J., Yener, U., Szalkowski, G. A., Pollom, E., Soltys, S., Chang, S. D., Meola, A. 2023; 55 (2): E7
- **Stereotactic body radiotherapy optimization to reduce the risk of carotid blowout syndrome using normal tissue complication probability objectives** *JOURNAL OF APPLIED CLINICAL MEDICAL PHYSICS*  
Szalkowski, G., Karakas, Z., Cengiz, M., Schreiber, E., Das, S., Yazici, G., Ozigit, G., Mavroidis, P. 2022; 23 (5): e13563
- **Synthetic digital reconstructed radiographs for MR-only robotic stereotactic radiation therapy: A proof of concept** *COMPUTERS IN BIOLOGY AND MEDICINE*  
Szalkowski, G., Nie, D., Zhu, T., Yap, P., Lian, J. 2021; 138: 104917

● **Feasibility Study of Cross-Modality IMRT Auto-Planning Guided by a Deep Learning Model**

Szalkowski, G., Xu, X., Das, S., Yap, P., Lian, J.  
WILEY.2021

● **Image Synthesis for Planning and Target Tracking of MR-Based Stereotactic Radiation Therapy**

Szalkowski, G., Nie, D., Zhu, T., Yap, P., Lian, J.  
WILEY.2021

● **Optimization of hexagonal-pattern minibeam for spatially fractionated radiotherapy using proton beam scanning** *MEDICAL PHYSICS*

Charyev, S., Artz, M., Szalkowski, G., Chang Chih-Wei, Stanforth, A., Lin Liyong, Zhang Rongxiao, Wang, C.  
2020; 47 (8): 3485-3495

● **Computer-Aided Star Shot Analysis for Linac Quality Assurance Testing**

Szalkowski, G. A., Roper, J.  
TAYLOR & FRANCIS INC.2019: 905-911

● **Monte Carlo Study of Photon Minibeams**

Szalkowski, G., Wang, C., Charyev, S.  
WILEY.2018: E614

● **Development of Proton Minibeams as New Form of GRID Radiotherapy**

Charyev, S., Wang, C., Szalkowski, G.  
WILEY.2018: E488

● **Design of Faraday cup ion detectors built by thin film deposition** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*

Szalkowski, G. A., Darrow, D. S., Cecil, F. E.  
2017; 848: 87-90