

# Daniel Strauss, MS

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## Education

2023 **Medical Physics Residency**, Baylor Scott and White Health, Temple, TX.

2021 **Medical Physics**, *Vanderbilt University*, Nashville, TN.

Master of Science

2015 **Physics**, *University of Maryland*, College Park, MD.

Bachelor of Science

## Employment History

2018–2019 **Medical Physicist Assistant**, *California Protons Cancer Therapy Center*, San Diego, CA.

2015–2018 **Medical Physics Extender**, *Maryland Proton Treatment Center*, Baltimore, MD.

## Clinical Projects and Responsibilities

- Responsible for patient specific verification and ensuring the dosimetric viability of proton radiation treatment plans.
- Proficient in computer programming including Python and JavaScript.
- Familiar with Monte Carlo software including TOPAS and Geant4.
- Familiar with 3D modeling including FreeCAD and Blender software.
- Responsible for monthly and assisting in annual proton machine QA.
- Familiar with various radiation detectors including: IBA Matrixx, IBA ion chambers, PTW Octavius and UNIDOS E electrometer, Catphan 500, PTW, IBA, and SNC 3D and 1D water phantoms.
- Developed MATLAB software capable of identifying locations within a proton treatment field that can be used to verify dose output more accurately.
- Assisted with the acceptance testing and commissioning of treatment rooms.
- Responsible for the storage of radioactive parts and waste. Ensured compliance with the state mandated requirements.

## Publications

- **Strauss, D.**, Eley, J. (2020), Monte Carlo Simulations of Minibeam Therapy with Protons and Carbon Ions. AAPM ePoster. Poster Number: BRePSNAP-T-142
- Lagner, U. W., Mundis, M., **Strauss, D.**, Zhu, M. and Mossahebi, S. (2017), A comparison of two pencil beam scanning treatment planning systems for proton therapy. J Appl Clin Med Phys. doi:10.1002/acm2.12235
- Eley, J., **Strauss, D.**, and Langner, U. (2016). Polyenergetic Data Acquisition Using a Video-Scintillator Detector for Scanned Proton Beams. Int J Particle Ther, 3(3), 392-397

- Yu, J., **Strauss, D.**, Langner, U. and Langen, K. (2016), Patient Surface Dose Measurements Using Optically Stimulated Luminescence Dosimeters in scanning Proton Beam Therapy for Breast Cancer. Med. Phys., 43:3501
- Yu, J., Nichols, E., **Strauss, D.**, Chung, H., Langner, U., and Langen, K. (2016), Measurement Evaluation of Skin Dose in Scanning Proton Beam Therapy for Breast Cancer. Med. Phys., 43:3496

## --- Teaching Experience

2016–2019      Mentor, Junior Medical Physicist Extenders (MPTC)

## --- Additional Experience

2009-2022      Private Pilot (Airplane Single Engine Land with Instrument Rating)

2009–2011      Emergency Medical Technician, Cabin John Park Volunteer Fire Department