# Tools to help others

1. **Anderson B.M,** Wahid K., Brock K. *Simple Python Module for Dicom and RT: Conversions to Images and Masks, and Predictions to DICOM-RT Structures* Practical Radiation Oncology 02/2021

# Image Based

## Liver Segmentation

1. **Anderson B.M**, Lin EY, Cardenas CE, Gress DA, Erwin WD, Odisio BC, Koay EJ, Brock KK*Automated Contouring of Contrast and Non-Contrast CT Liver Images with Fully Convolutional Networks (FCNs)* Advances in Radiation Oncology 05/2020

## Colorectal Liver metastasis and ablation zone segmentation

1. **Anderson B.M**, B. Rigaud, Y Lin, K Jones, H Kang, B Odisio, K Brock *Automated Segmentation of Colorectal Liver Metastasis and Liver Ablation on Contrast-Enhanced CT Images* Frontiers in Radiation Oncology 08/22

## Breast Density

1. Rigaud B, Weaver O.O, Dennison J. B, Awais M, **Anderson B. M,** Chiang T-Y. D, Yang W. T, Hanash S. M, Brock K. K *Deep Learning Models for Automated Assessment of Breast Density Using Multiple Mammographic Image Types* Cancers 10/2022

## Simulation and Synthesis of Medical Images

1. Woodland M, Wood J, **Anderson B.M**, Kundu S, Lin E, Koay E, Odisio B, Chung C, Kang H.C, Venkatesan A.M, Yedururi S, De B, Lin Y-M, Patel A.B, Brock K.K *Evaluating the Performance of StyleGAN2-ADA on Medical Images* Simulation and Synthesis in Medical Imaging. SASHIMI 2022. Lecture Notes in Computer Science, vol 13570. Springer, Cham 09/22

## Gyn Anatomy

1. Rigaud B, **Anderson B.M**, Yu ZH, Gobeli M, Cazoulat G, Söderberg J, Samuelsson E, Lidberg D, Ward C, Taku N, Cardenas C, Rhee DJ, Venkatesan AM, Peterson CB, Court L, Svensson S, Löfman F, Klopp AH, Brock KK *Automatic segmentation using deep learning for online dose optimization during adaptive radiotherapy of cervical cancer* International Journal of Radiation Oncology, Biology, Physics 10/2020

## Oropharyngeal CTVs

1. Cardenas, E.C, **Anderson B.M**, Aristophanous M, Yang J, Rhee DJ, McCarroll RE, Mohamed ASR, Kamal M, Elgohari BA, Elhalawani HM, Fuller CD, Rao A, Garden AS, Court LE *Auto-delineation of Oropharyngeal Clinical Target Volumes Using Three-Dimensional Convolutional Neural Networks* Physics in Medicine and Biology 10/2018

# Therapy Based

## Verification of beam placements for four-field box (For Low- and Middle-Income Countries)

1. Kisling K, Cardenas C, **Anderson** **B.M.**, Zhang L, Jhingran A, Simonds H, Balter P, Howell RM, Schmeler K, Beadle BM, Court L. *Automatic Verification of Beam Apertures for Cervical Cancer Radiation Therapy* Practical Radiation Oncology 09/2020

## Predicting In-Vivo EPID Images (Currently In submission)

1. **Anderson B.M,** Moore K., Bojechko C. *EPIDEEP: Predicting In-Vivo EPID Transit Images – a Deep Learning Approach*AAPM Annual Conference 07/2022

## Predicting Locations of future recurrence with activation maps

A part of my dissertation was also to identify activation maps from liver ablation images. The idea being to identify which parts of the disease would lead to future recurrence. MD Anderson, Dissertation: “Improving Treatment of Local Liver Ablation Therapy with Deep Learning and Biomechanical Modeling” <https://digitalcommons.library.tmc.edu/utgsbs_dissertations/1099/>