

# Anomaly Detection for Treatment Planning and a Learning Health System in Radiotherapy



- Motivation
  - Improve the quality of clinical data available to physicians so they can make better informed decisions regarding radiotherapy treatments for their patients. Replace certain manual aspects of integrity checking with automation to avoid human error.
- Methods
  - Create framework and API that allows for the insertion and testing of integrity validation modules
  - Query database for data points, such as contour model binary masks, and test sample validity
- Results
  - Created framework that allows for modular insertion of detection modules
  - Implemented several anomaly detection modules and gathered results
  - Finishing documentation and incorporation into existing oncospace packages