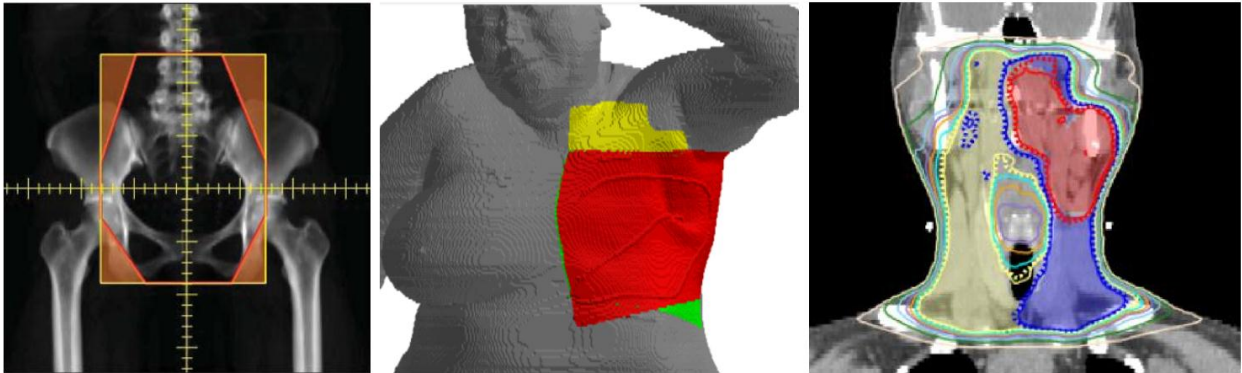


Physics approaches to improving access to cancer care in low- and middle-income countries

Dr. Laurence Court

The University of Texas MD Anderson Cancer Center

17th of January at 4:15pm in the Dennis Sciama lecture theater



Radiation therapy is a cost-effective curative treatment for patients diagnosed with cancer around the world; in resource-constrained settings, such as low- and middle-income countries (LMICs), radiation is especially important and often provides the only potential curative treatment. For many malignancies, including locoregionally advanced carcinomas of the cervix and head/neck, there is an extremely poor prognosis for these patients without radiation, with no reasonable curative alternative if radiation therapy is not available. Our central hypothesis is that by fully automating the treatment planning process, we can reduce the shortfall of needed medical physicists by close to 50% (5000 people – equivalent to more than 20,000 training-years) while providing robust, high-quality radiation treatment plans for patients in low- and middle-income countries. Towards this, we have been developing automated solutions for 3 years. We have successfully deployed several automation tools into our own clinical practice, and aim to start treating patients in South Africa in early 2019.

Dr. Laurence Court is a principle Investigator in the Department of Radiation Physics, the University of Texas MD Anderson Cancer Centre, Houston, Texas, USA. Laurence runs a group of ~14 people, working on the development of automated radiation therapy treatment planning tools, specifically focused on clinics in low- and middle-income countries.

