

AN AUTOMATED METHOD FOR QUALITY ASSURANCE OF LIGHT AND RADIATION FIELD COINCIDENCE AND SYMMETRY USING AN IONISATION CHAMBER ARRAY

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Purpose - Goal

- Simultaneous measurement of light and radiation field
- Filmless method
- Improved reproducibility
- Online results
- Reduce workload

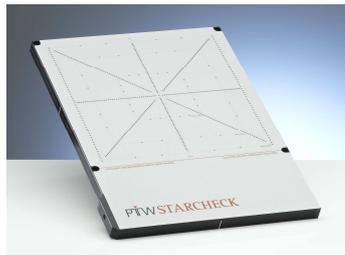
No film required

Reproducibility <0.2mm

Accuracy <0.3mm

Single shot measurement

Online results



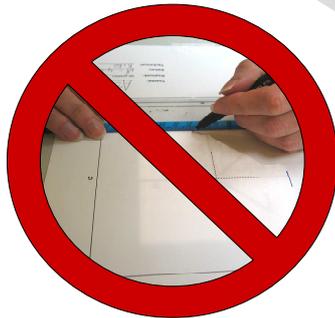
StarCheck



FieldCheck



Light and radiation field coincidence



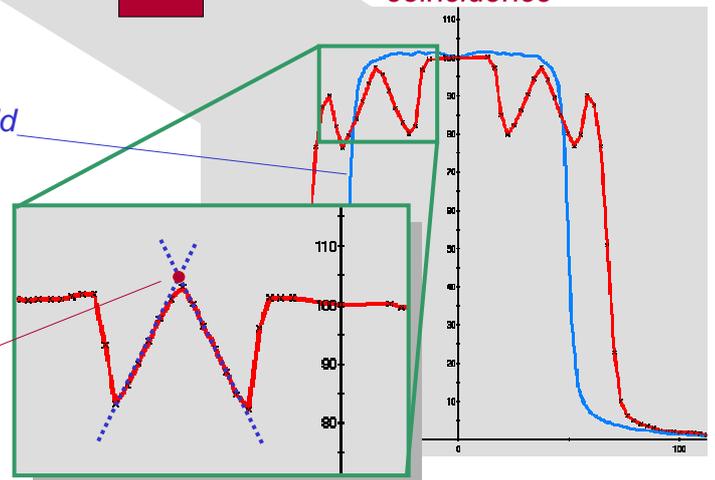
No more manual operations!



No more film!

Main Axis:
Radiation Field

Diagonal Axis:
Light Field



Example of projected marker pattern

Method

Together with the STARCHECK ionisation chamber array (PTW Freiburg), the FIELDCHECK phantom (PTW Freiburg) is used to check the congruence of light field and radiation field. The limits of the radiation field size are measured on the main axes of the STARCHECK detector. To detect the exact position of the light field, four movable sliders are adjusted to the edges of the light field. These sliders move markers on the diagonal axes of the STARCHECK detector. With "beam on" the markers are displayed as patterns on the diagonal profile. Software (MultiCheck, version 3.3 or higher, PTW Freiburg) derives from these patterns the position of the markers and the light field edge.

