

ECG-controlled cardiac CT using the physiological measurement module of seleon

The worldwide unique dual source CT technology enables the Somatom® Definition of Siemens Medical Solution CT to deliver detailed cardiac images, independent of the heart rate. Even patients with high or irregular heart rates can be imaged without motion artefacts.

seleon has developed a module for this worldwide fastest CT-scanner that synchronizes the imaging with the ECG. During the CT data acquisition the seleon-module measures and analyses physiological data like the ECG, heart rate and a respiratory signal. The QRS complex is detected in real-time during the ECG monitoring and a trigger signal is sent to the CT-scanner.

This ECG-controlled cardiac imaging offers a very robust diagnostic image quality. Furthermore, it allows a heartbeat-controlled dose modulation. The time of high exposure can be reduced to the interesting heartbeat phase, which reduces the radiation dose significantly compared to conventional cardiac CT.