

# An approach to the simulation of Radiographic Testing techniques

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Despite the acknowledged advantages that computer simulations can offer to Radiographic Testing, simulation solutions are uncommon in the industry. This paper presents an effective strategy for the simulation of Radiographic Testing techniques using Geant4 Application for Tomographic Emission (GATE), which is a medical imaging software toolkit.

Models for X-ray emission, test specimen geometry, radiation interaction with the test specimen, and image receptors were created in GATE. Double Wall Single Image technique was set up to evaluate the simulation models.

The results showed that GATE can afford a reliable and cost-effective solution in the simulation of Radiographic Testing procedures.

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