A gentle reminder: Please use the option “exclude bibliography” when running iThenticate.

The changes in the paper are as follows:

**Section 1 Introduction**

1st paragraph

Line 2: “comprises a group of methods” replaced with “comprises methods.”

Line 4: “without causing deformation” replaced with “without affecting deformation.”

5th paragraph

“In this work, Geant4 Application for Tomographic Emission (GATE) toolkit is used to simulate an RT using X-ray. The GATE toolkit was initially developed to provide a realistic simulation for tomographic emission in medical applications and later extended to include radiotherapy and dosimetry applications.”

Replaced with:

“Geant4 Application for Tomographic Emission (GATE) toolkit, which is a medical physics simulation software, is used in this work to simulate an RT using X-ray.”

**Section 4 Conclusions**

Rephrased text was provided:

The present study has developed tools that allow for simulating radiographic inspections using GATE software. Once GATE is installed, users can integrate the developed resources, define the necessary material parameters, describe the item to be inspected, and run simulations.

The developed simulation environment provides an affordable option for Radiographic Testing specialists. However, it should be noted that the developed workspace is better suited for research and educational purposes. The Monte Carlo method used in GATE software can result in lengthy computation times, posing limitations on its practicality in industrial settings.