

Applied Physics Seminar

20 March 2026 | Tribes Gare centrale

08:30 – 09:00 *arrival + registration*

09:00 – 10:15

Treatment planning

F. Vanhoutte (UZ Gent)

- a. Dosimetric uncertainties
 - b. Geometric uncertainties
 - c. Challenges in retreatment
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10:15 – 10:45 *coffee break*

10:45 – 12:00

Imaging for planning and verification

Y. Jourani (Institut J. Bordet)

- a. Different imaging concepts used for planning and contouring including 4D CT
 - b. Segmentation concepts
 - c. IGRT: MVCT, Cone beam CT, Surface guided RT (SGRT)
 - d. QA aspects for IGRT
 - e. Motion control and rigid / non-rigid registration
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12:00 – 13:00 *lunch*

13:00 – 14:15

Principles and practice of external beam QA

T. Depuydt (UZ Leuven)

- a. Principles of Acceptance / Commissioning
 - b. Machine QA
 - c. Patient specific QA
 - d. Log-file based QA
 - e. In-vivo dosimetry / exit dosimetry
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14:15 – 14:45 *coffee break*

14:45 – 16:00

Special irradiation techniques

G. Pittomvils (UZ Gent)

- a. Photons
 - a. Total Body Irradiation (TBI)
 - b. Stereotactic RadioSurgery (SRS)
 - b. Electrons
 - a. Electron beam therapy, Manual Calculation versus Electron Monte Carlo
 - b. Total Skin Electron Beam Therapy (TSEBT)
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Special techniques

F. Sergent (IBA)

- c. Photon Beams
 - a. SBRT
 - d. Proton beams
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16:00 – 16:30 End of the course and knowledge test
