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Seminario:

Accurate gamma-ray impact determination in monolithic PET imaging systems

📍 Salón de actos, cubo amarillo / online
Ciudad Politécnica de la Innovación
Universitat Politècnica de València

📅 Miércoles 17/05/2023

🕒 10:00

☕ ... con almuerzo!



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Accurate gamma-ray impact determination in monolithic PET imaging systems

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Lugar: Salón de actos, cubo amarillo / en línea, CPI, Universitat Politècnica de València, Valencia.

Fecha: 17 de mayo de 2023.

DOI:

Summary:

Positron Emission Tomography is a powerful molecular imaging technique that provides quantitatively measurements of biological and physiological processes occurring within the body at the molecular level by using specific radiopharmaceuticals. Efforts to improve PET systems performance are focused on increasing their sensitivity and image quality, allowing for more accurate clinical assessment.

To boost performance, it has been suggested to use PET detectors based on monolithic crystals designs, due to their advantages compared to pixelated detectors. The DMIL group has focused in recent years on the development of such PET detectors. However, their implementation in commercial scanners requires overcoming some challenges mostly related to photon impact positioning methods and calibration procedures to provide the impact coordinates. In this seminar, novel methodologies for an accurate determination of this information in monolithic detectors will be presented, emphasizing in their practical application to full PET systems.

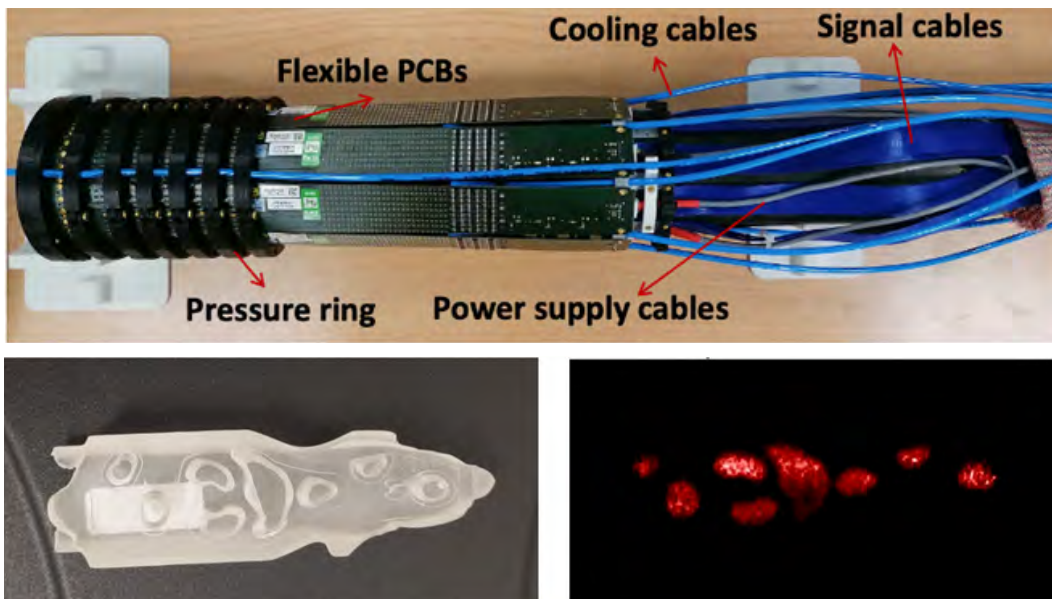


Figure: Prototype, phantom and PET image