

Group 6 - EasyPET



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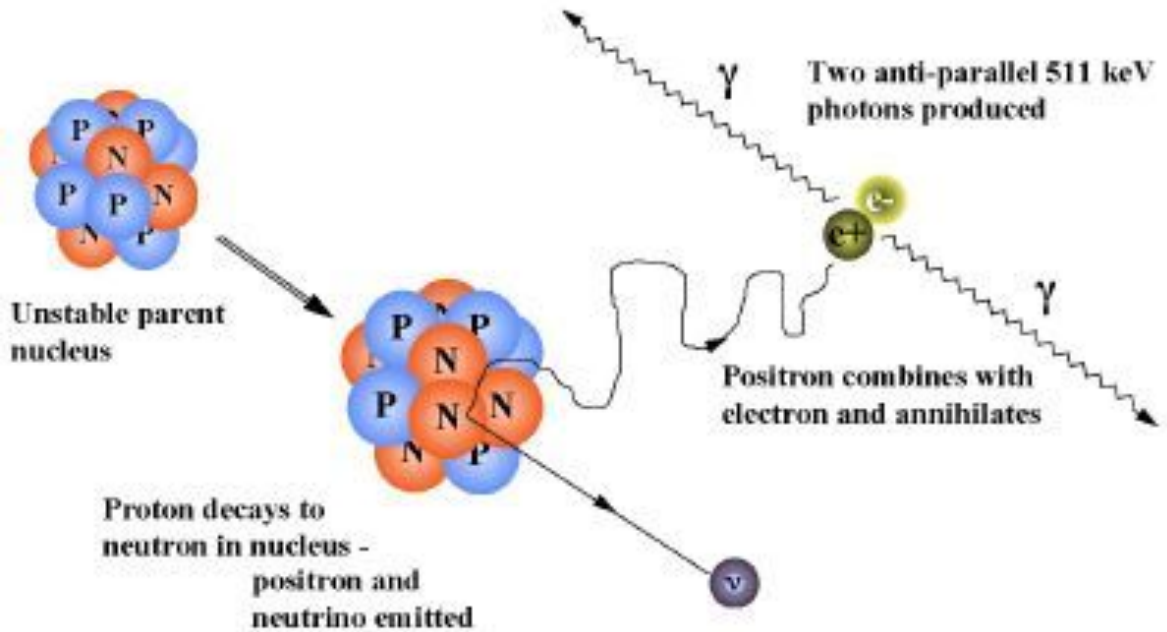
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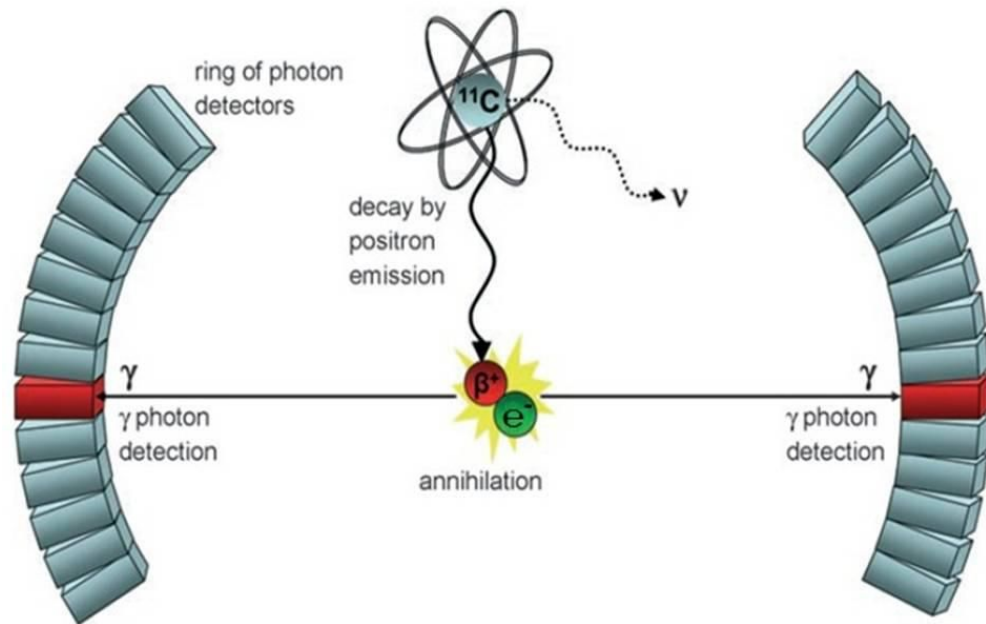
Presentation Outline

1. Introduction
2. Motivation
3. Experimentation
4. Results
5. Conclusion



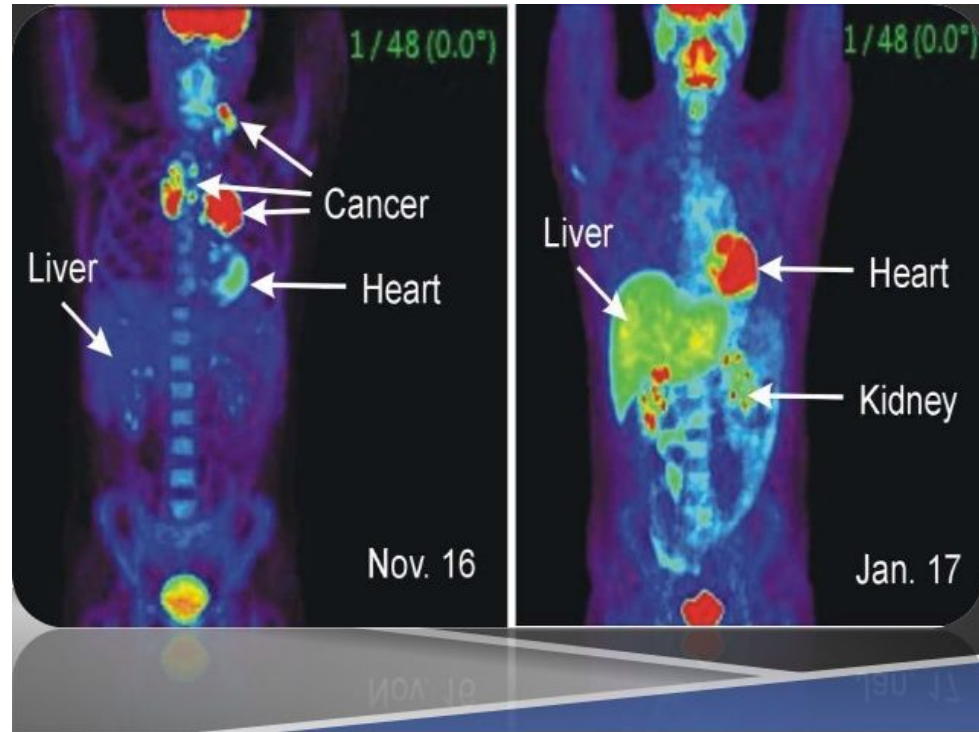
Introduction

1. What is PET?
2. Why use PET?



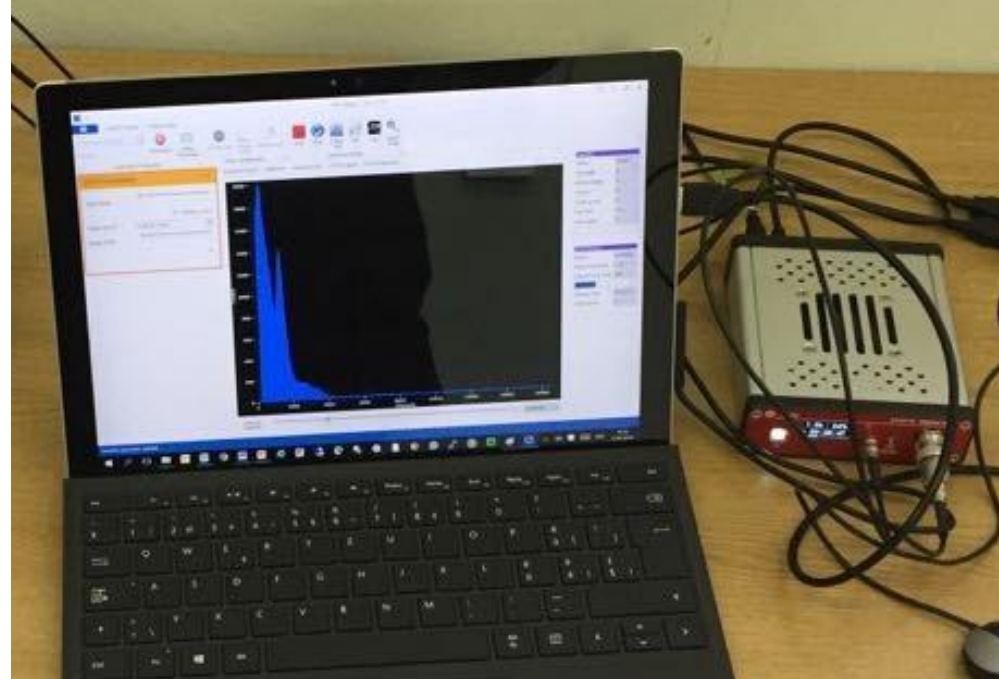
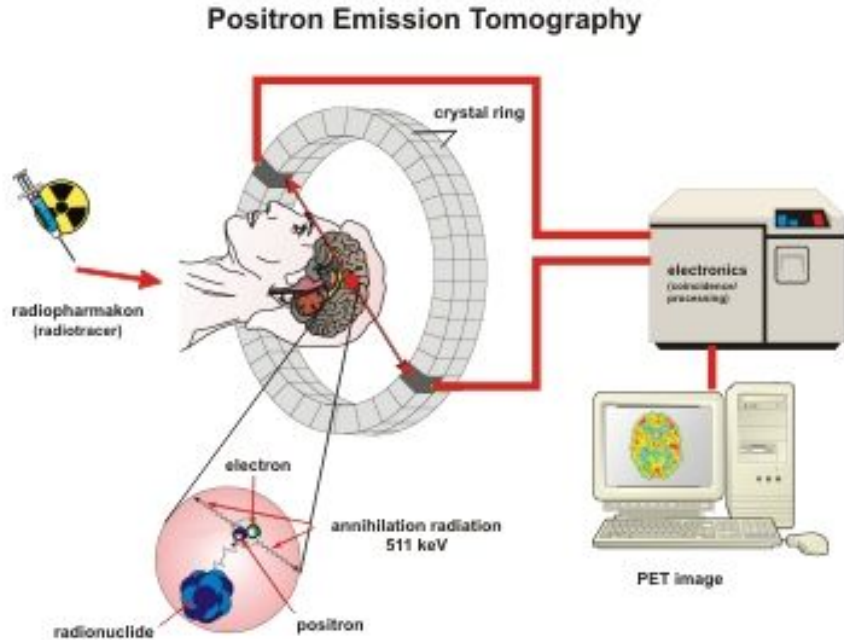
Motivation

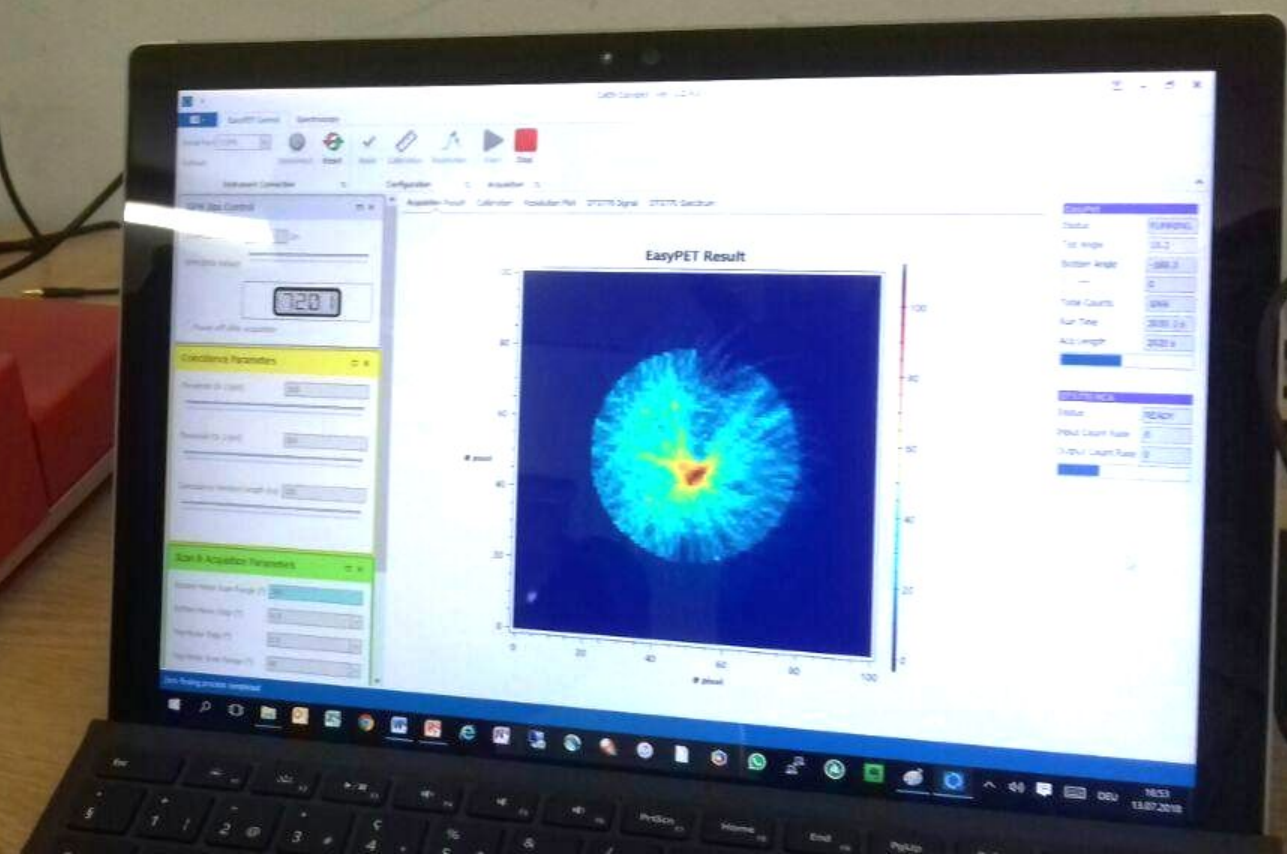
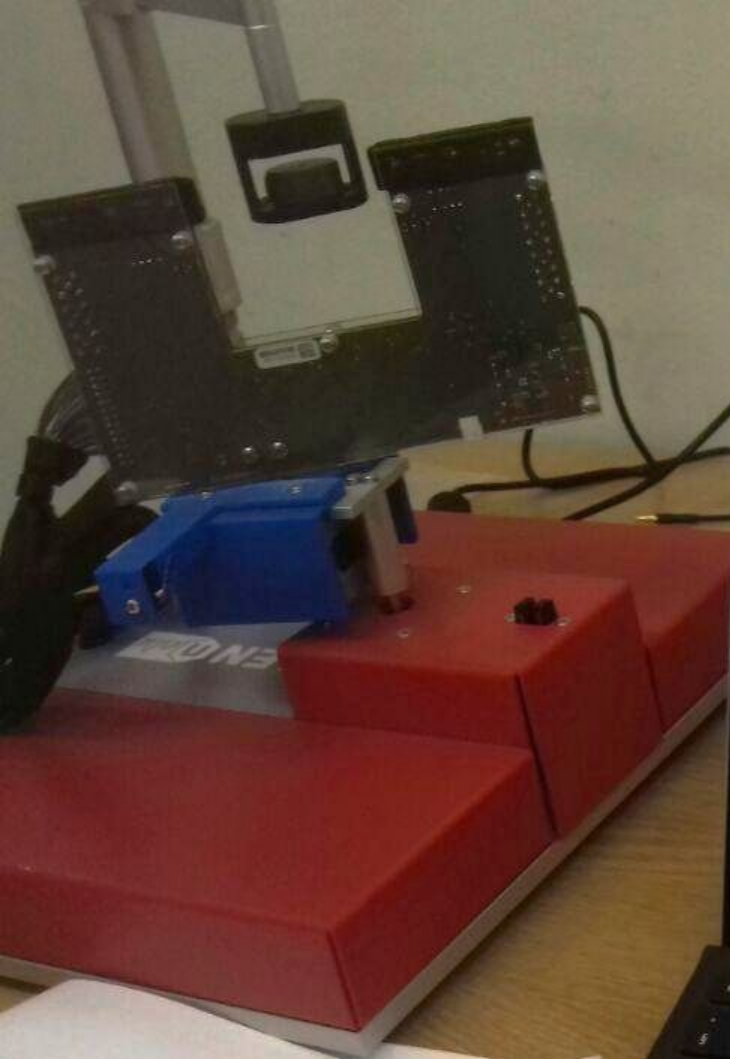
1. Understanding PET
2. Imaging a radioactive Na^{22} source
 - β^+ emitter
 - 12 μCi activity
 - Emission of 511 keV from positron annihilation
 - Emission of 1274 keV from Ne^{22} in excited state



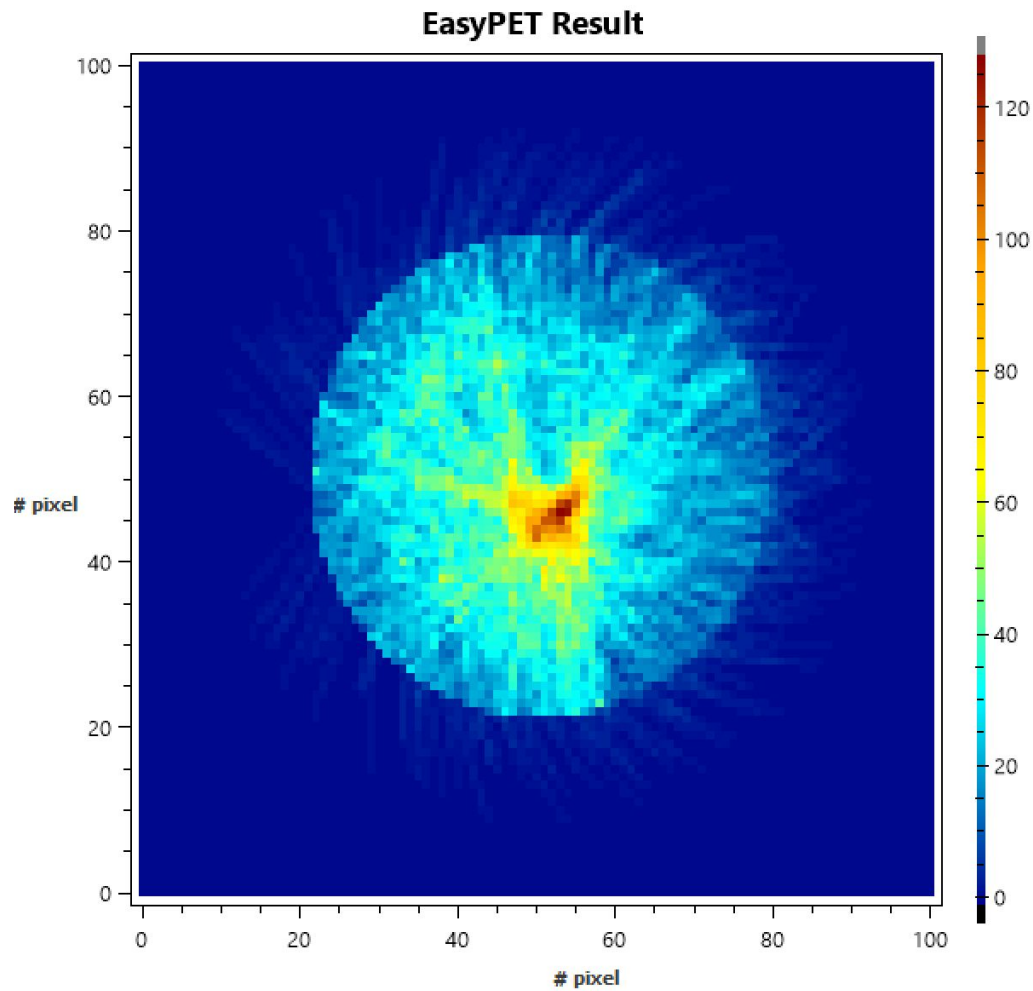
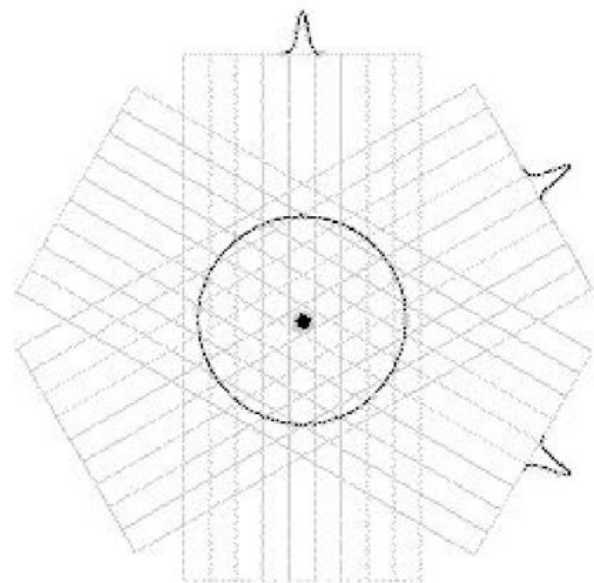
Experimentation

1. Setup
2. Calibration
3. Data Acquisition





Results



CAUTION

Conclusion

1. Imaging of a sealed source of Na^{22} was obtained
 - a. But not without issues...
2. New equipment, new software, inherent bugs
3. Coarse resolution of tool is evident
4. Better results will follow with more familiarity and experience with the tool

RADIOACTIVE

Radioactive Decay Chain

