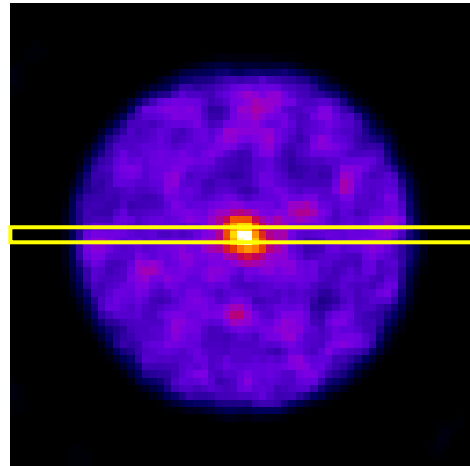
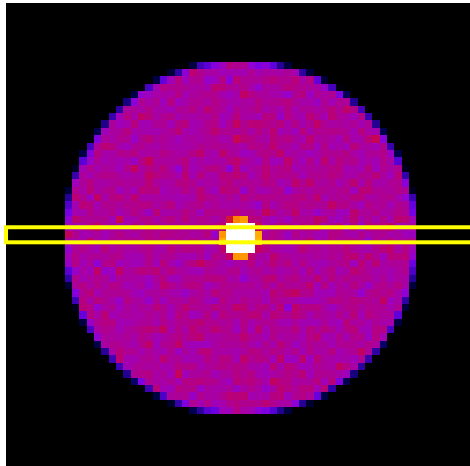


XEMIS2 Image reconstruction

Preliminary

Generated distribution

Reconstructed image



GATE simulation:

- Water cylinder phantom filled with homogeneous source ^{44}Sc (length. 15 cm, diam. 5 cm) + sphere located at the centre, contrast x4 (diam. 5 mm)
- low activity 20 kBq
- Acquisition time 20 minutes

Image $64 \times 64 \text{ mm}^2$
 Voxels $1 \times 1 \times 2 \text{ mm}^3$
 Central slice ($z = 0 \text{ cm}$)

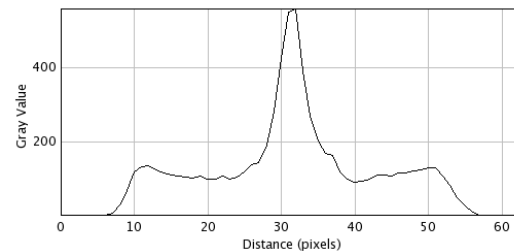
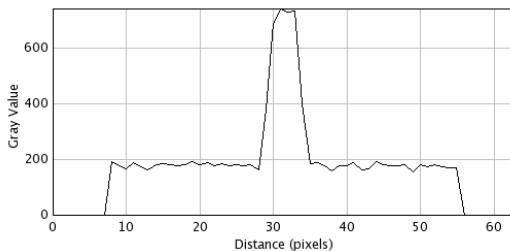


Image reconstruction: 3γ + list-mode MLEM algorithm after 50 iterations

L. Parra et al., List-Mode Likelihood: EM Algorithm and Image Quality Estimation Demonstrated on 2-D PET, IEEE Trans. On Med. Im., Vol. 17, No 2, April 1998.