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## **An RPC-PET brain scanner: first results**

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We present first results from a prototype PET scanner based on Resistive Plate Chambers and specialized for brain imaging. The device features a 30 cm wide cubic field-of-view and each detector comprises 40 gas gaps with 3D location of the interaction point of the photon. Besides other imagery, we show that the reconstructed image resolution, as evaluated by an hot-rod phantom, is sub-millimetric, which is beyond the state-of-the-art of the standard PET technology for this application.

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