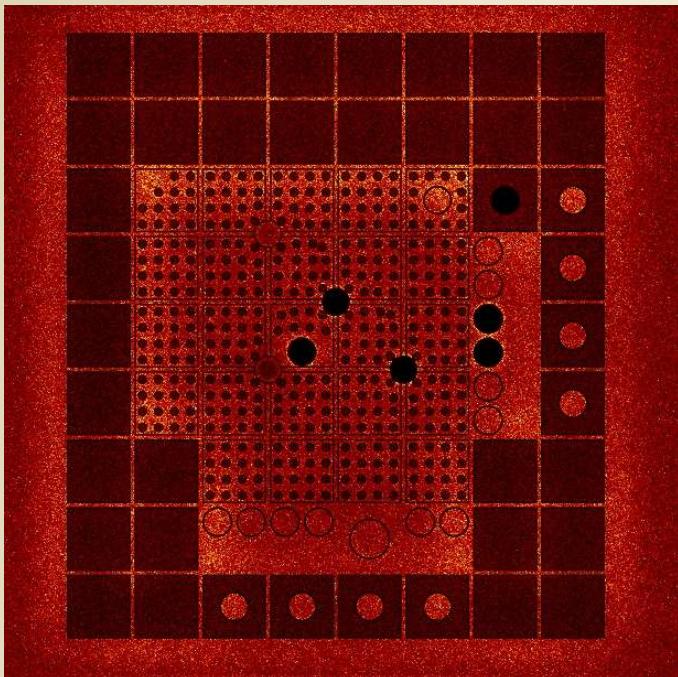


## Topic:

Graphics Processing Units (GPU, a.k.a video card) are used for „Ultimate Fidelity” reactor dynamics calculations.

GPU Assisted Reactor Dynamic Analysis, <http://awing.reak.bme.hu/GUARDYAN>



## Youtube videos:

- [\*\*BME OR\*\*](#)
- [\*\*VVER-440\*\*](#)

## Team:

- Előd Pázmán
- Tamás Hajas
- David Legrady

## For whom:

- Nuclear Techniques

## Skills to acquire:

- Monte Carlo methods
- Programming
- GPU programming
- Theoretical work

## Extra:

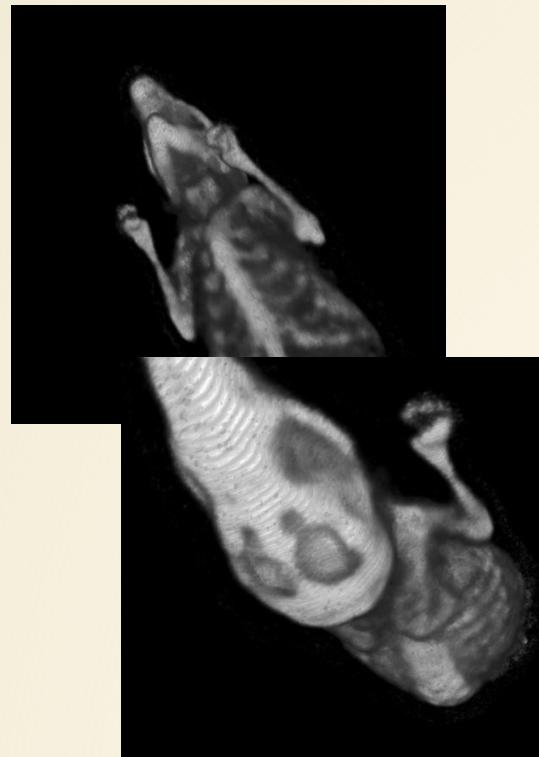
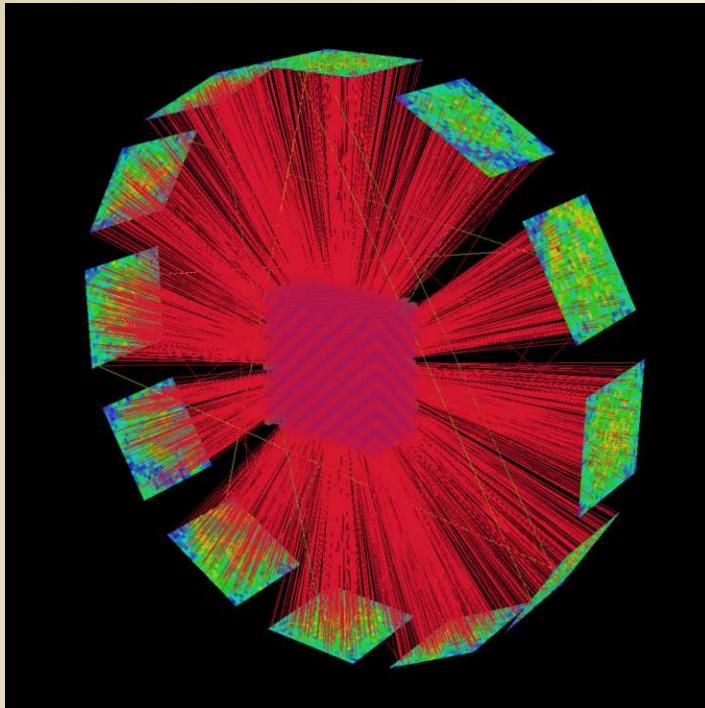
- publication
- Option for contract

**Topic:**  
GPU-based PET and SPECT image reconstruction  
software development.

**For whom:**

- Medical Physics
- Nuclear Techniques

**PANNI - Positron Emission Tomography Aimed Novel Nuclear Imager**



**Skills to acquire:**

- Monte Carlo methods
- Programming
- GPU programming
- Theoretical work

**Extra:**

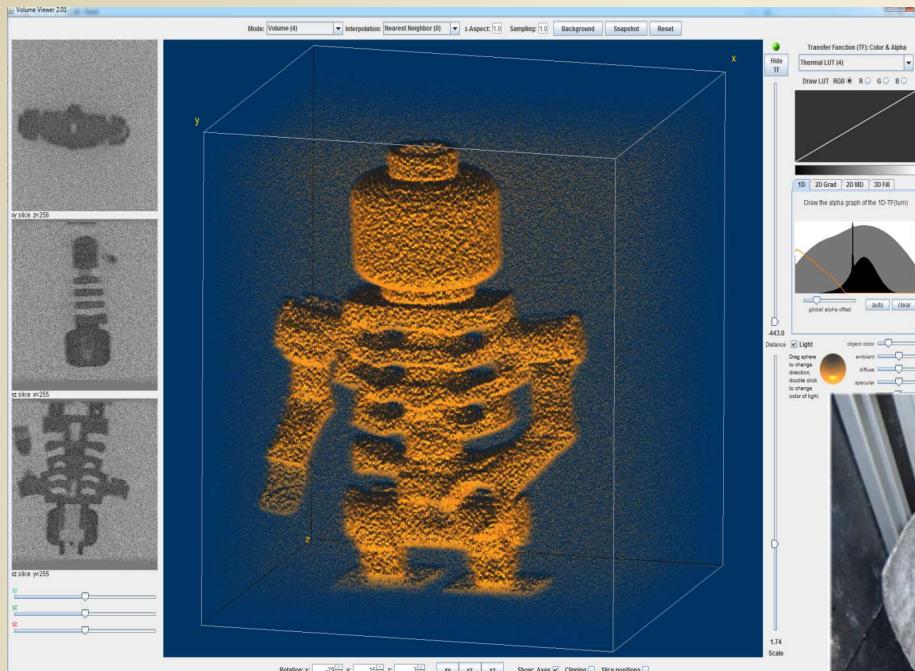
- Co-operation with  
Mediso Ltd.

**Topic:**  
CT development at NTI

**For whom:**

- Medical Physics

**NTI-uCT**



**Skills to acquire:**

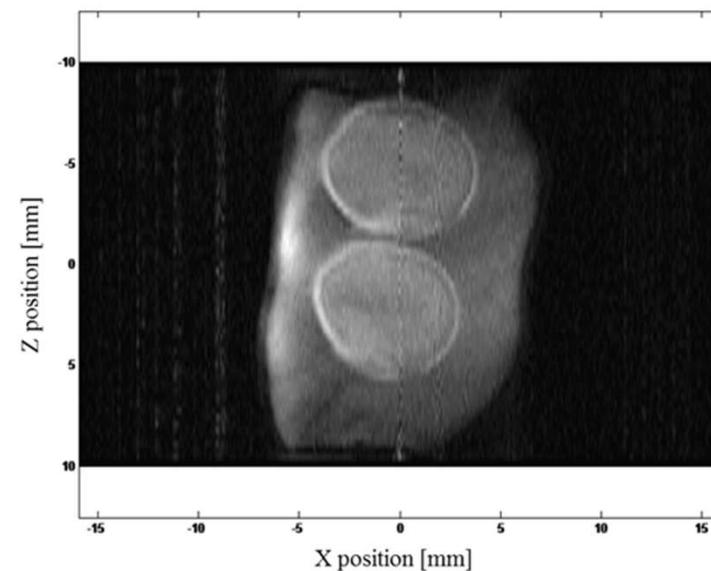
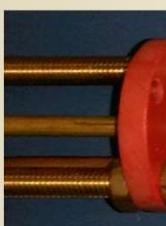
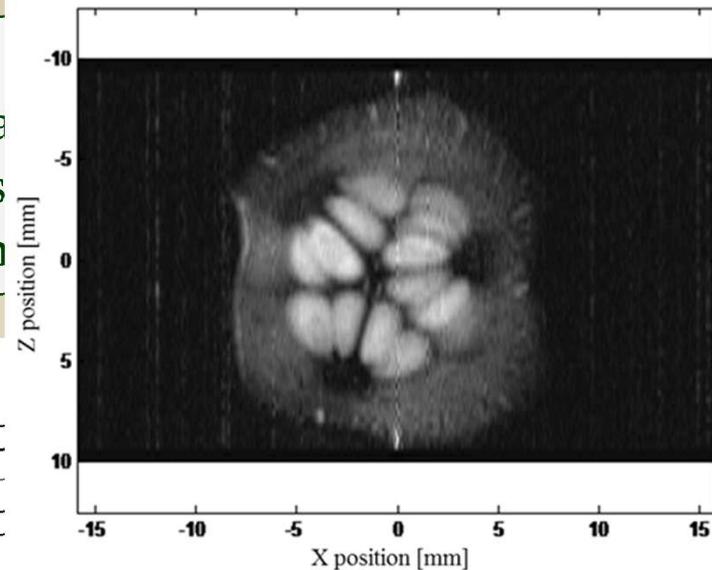
- Monte Carlo methods
- Programming
- GPU programming
- CT
- Experimental work



## MRI building



# Topic: 3D ima profess Curren



## Physics

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ental work

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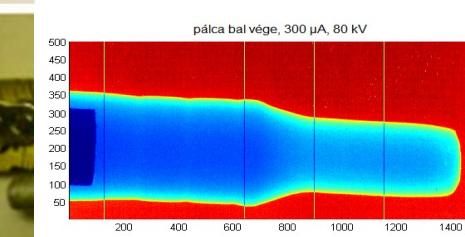
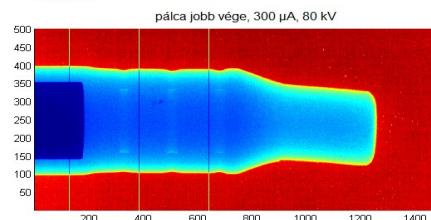
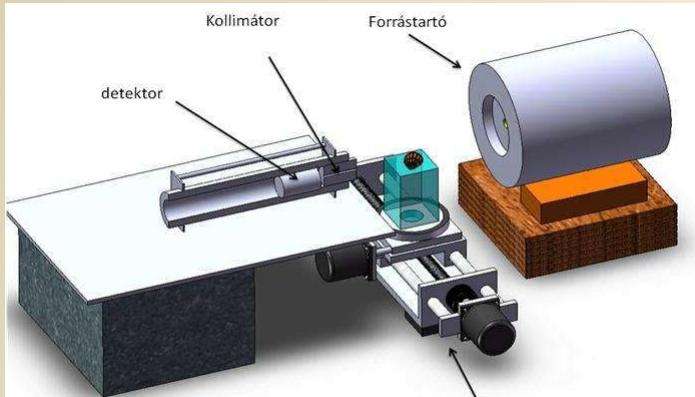


## Topic:

A 33x33 pixel LYSO PET scintillator module gamma tomography of thicker objects

## For whom:

- Medical Physics
- Nuclear Techniques



## Skills to acquire:

- Programming
- Theoretical work
- Experimental work