

# **Aza Eleni – ESR1**

ARDENT Midterm review – Preparatory meeting  
13<sup>th</sup> June, 2013 CERN

# Trainings

## 1. GEM assembly in Frascati

- Experience in clean room facility
- Testing the GEM foils in HV
- Preparing the material for the assembly
- Perform sandwich structure

## 2. FLUKA course

- Geometry building skills
- Scoring quantities
- Usage of FLAIR
- Some activation studies

## 3. Secondment in Polimi

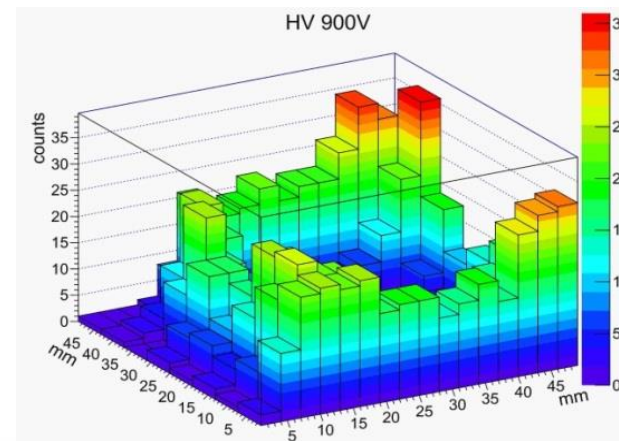
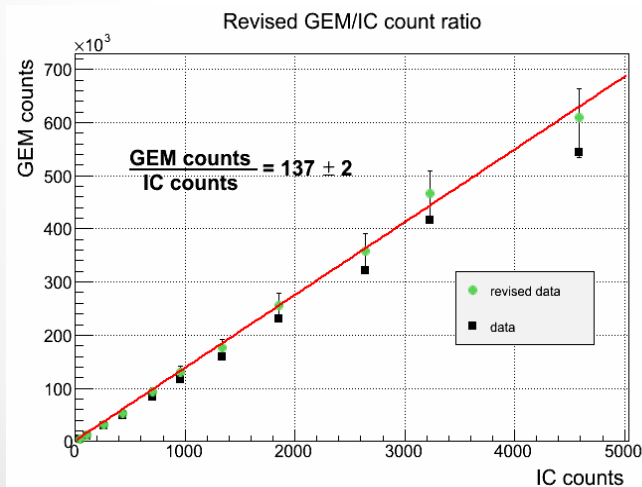
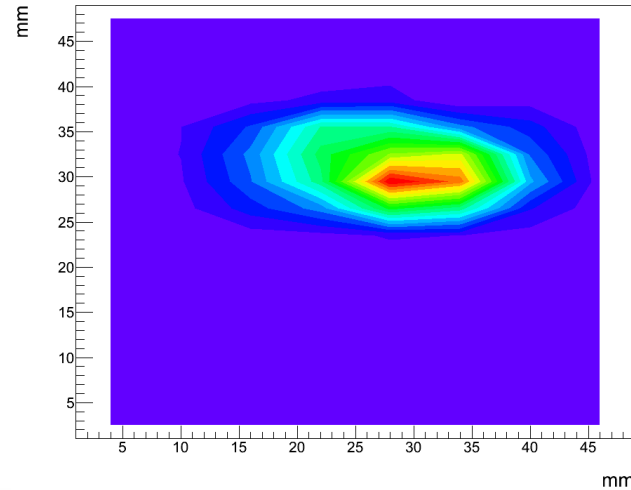
- FLUKA with E. Sagia in activation studies

# Experiments

## 1. Measurements at the CERF facility with GEM, CERN

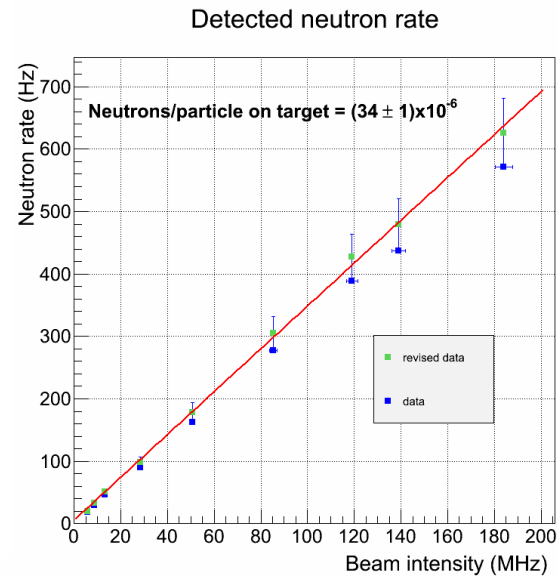
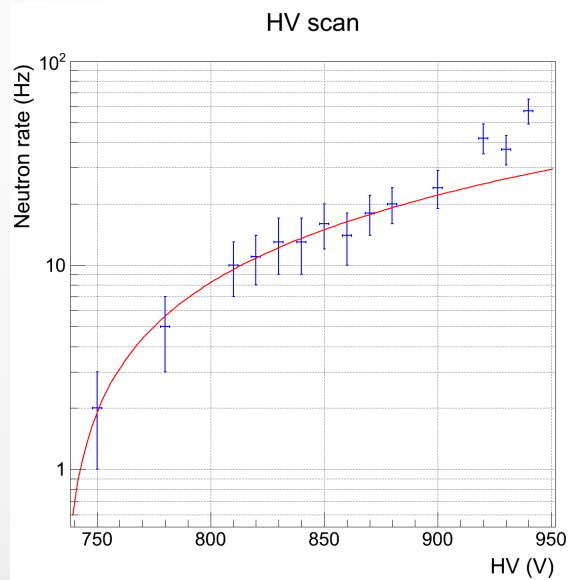
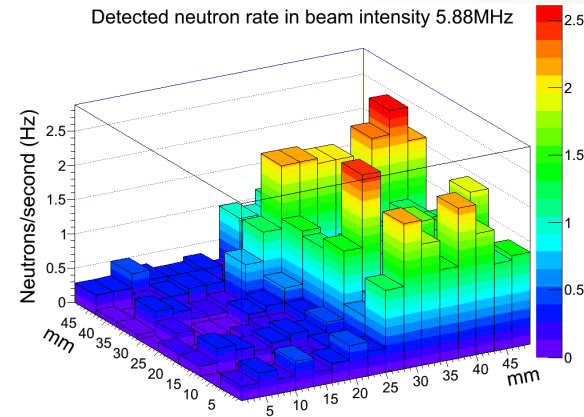
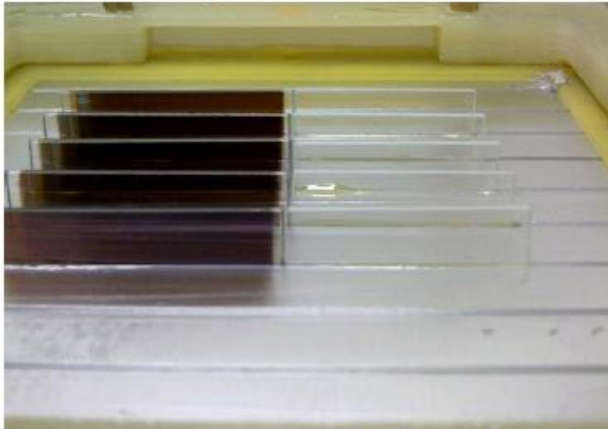
- Triple GEM with Al cathode as a beam monitor

Abstract submitted to IEEE



# Experiments

- Triple GEM with Boron converter for slow neutrons in position 2



# Experiments

## 2. Measurements with neutron detectors in pulsed fields

- HiRadMat facility, CERN

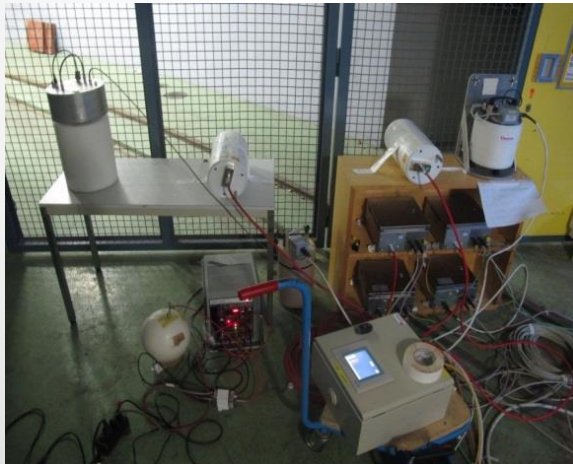
Intercomparison of neutron detectors

- i. ionization chambers & rem counters routinely employed in the CERN radiation monitoring system
- ii. LUPIN prototype



Submitted to Radiation Measurements

- Around the PS ring



Intercomparison campaign in 2011 & 2012,  
at the beginning of the access tunnel

Presented in NEUDOS12

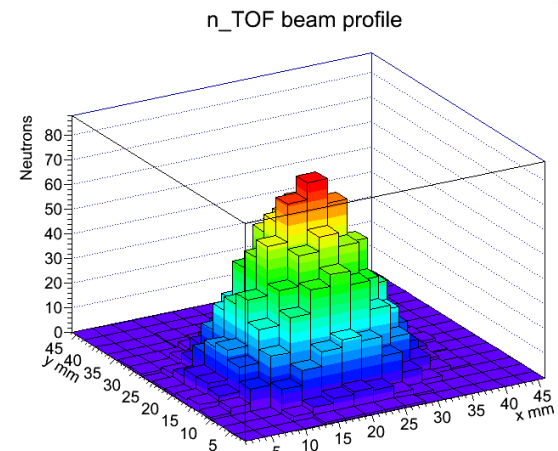
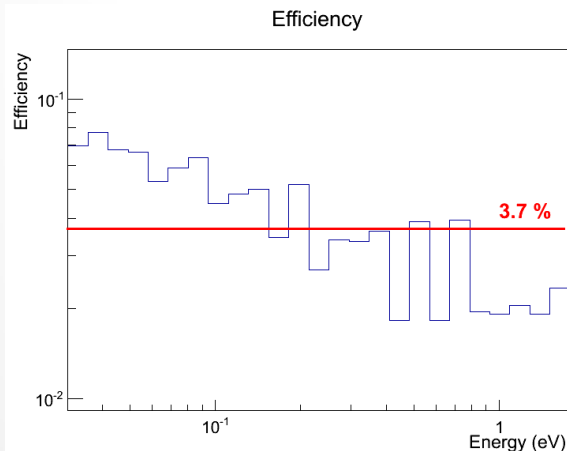
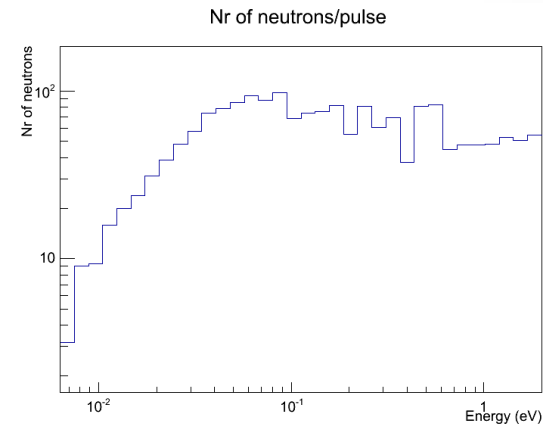
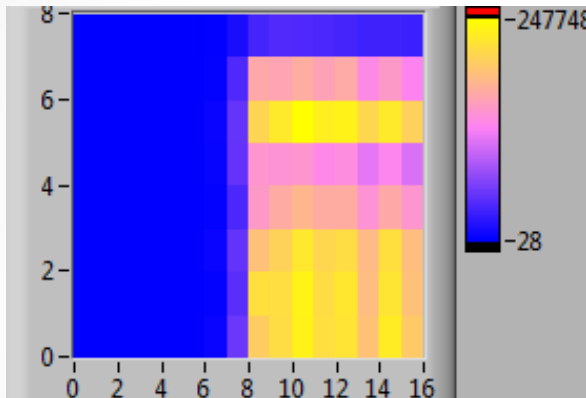
Will be published in Radiation Protection Dosimetry

# Experiments

## 3. Analysis of data taken at the n\_TOF facility with GEM, summer 2012

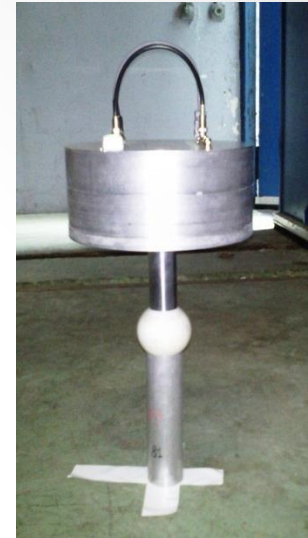
- Triple GEM detector with Boron converter for slow neutrons

Calculation of neutron energy spectrum from time-of-flight



#### 4. Measurements with BSS at the beginning of PS tunnel

Data not analyzed yet!



## Next thing to do



1. Write papers for the measurements at the CERF facility and n\_TOF
2. Start thinking/designing/simulations for the neutron spectrometer