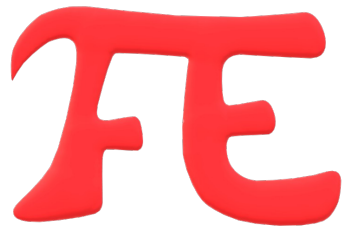


Physics and Innovations



for Future Experiments

# MPGD for Applied Physics

G Mezzadri

gmezzadr@fe.infn.it

*Lavori in Corso**25-02-2022*Istituto Nazionale di Fisica Nucleare  
Sezione di FerraraDipartimento  
di Fisica e  
Scienze della Terra

# Micro Pattern Gas Detector

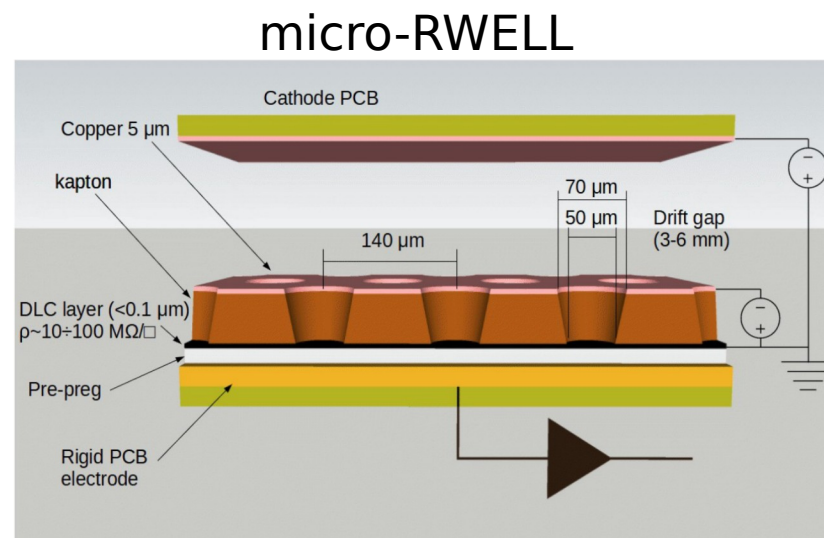
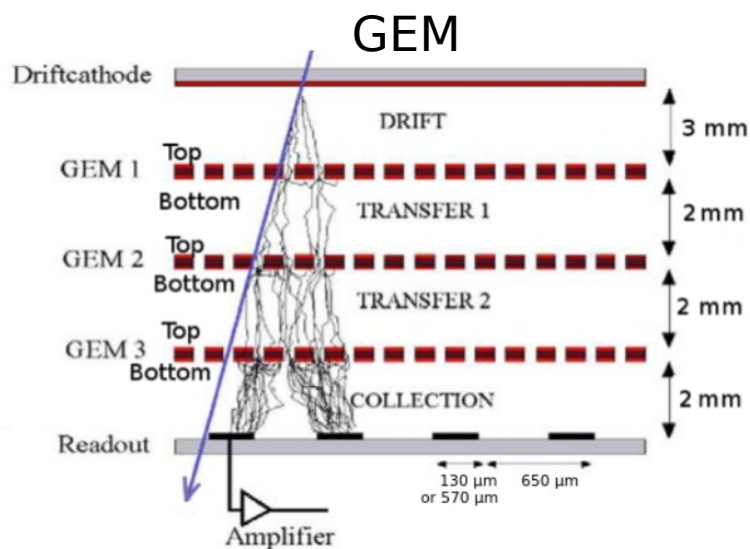
## aka MPGD

Gas detector with multiplication structures of the order of (hundreds) microns

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# To Do What?

To study **everyday-like** problems with **instrumentation** typical of the **High Energy Physics** community

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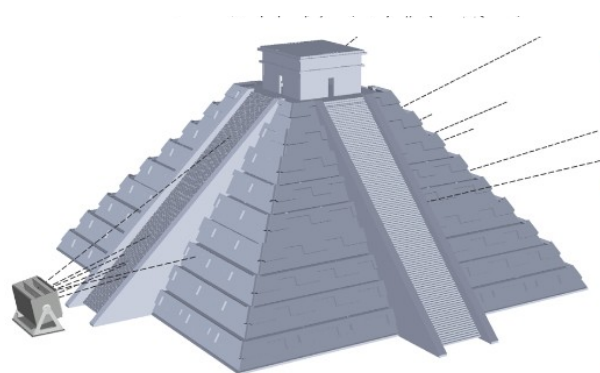
## Neutron Detection

For radioprotection and monitor



## Muon tomography

Investigation with cosmic rays



# Thesis proposals

*We believe that the thesis shall be adapted to the student attitudes and curiosity in combination with the present status of the projects*

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1) Study of front end electronics for muon tomography

BT - MT

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|--|---------|
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| 2) Development of cylindrical detector for neutron detection | BT - MT |



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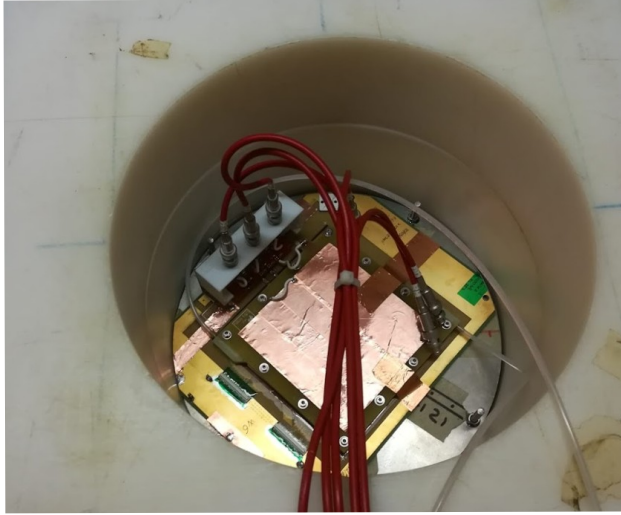
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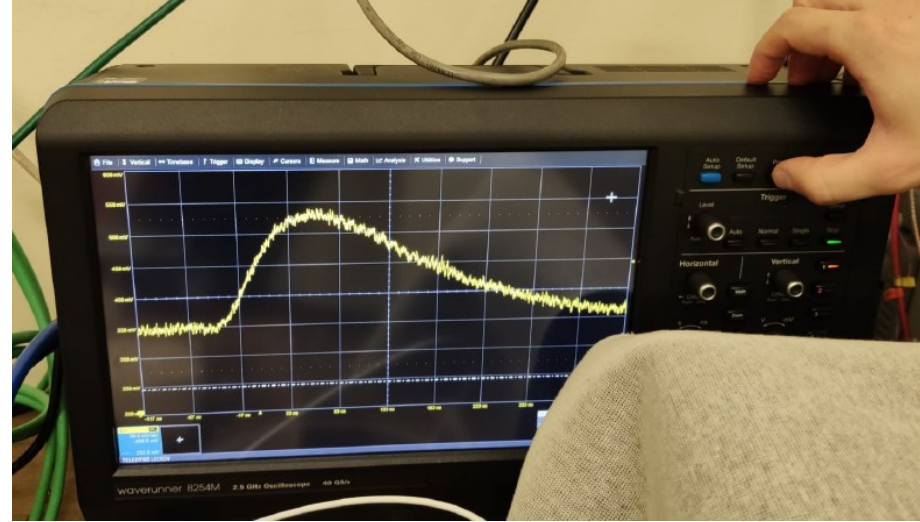
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BT: Bachelor's Thesis  
MT: Master's Thesis

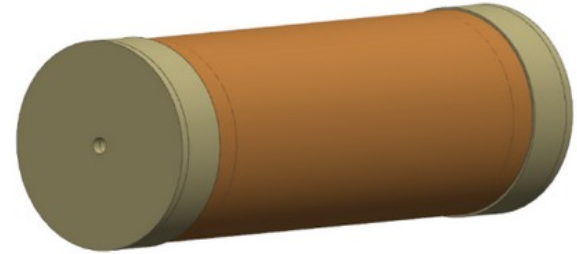
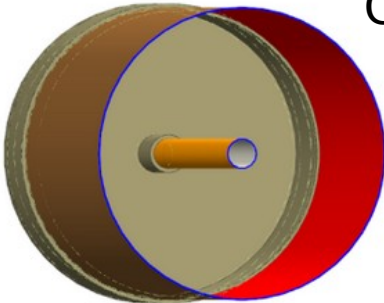
Test beam with neutron source

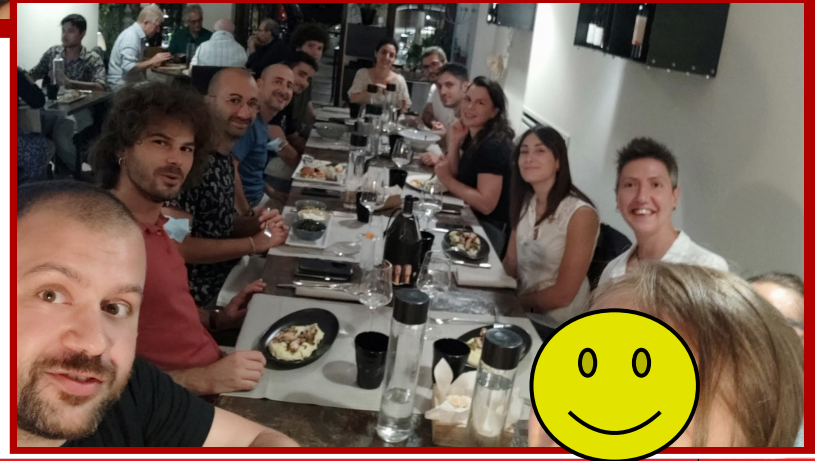


Electronics for muon tomography



Cylindrical structure for neutron detection





See you soon!

You can come to find us in Blocco C  
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May the  
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O.-W. Kenobi, Ph.D.

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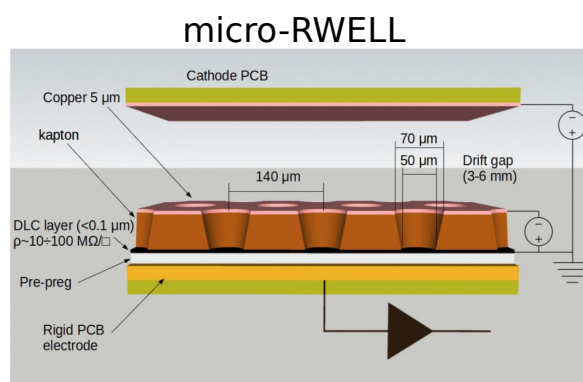
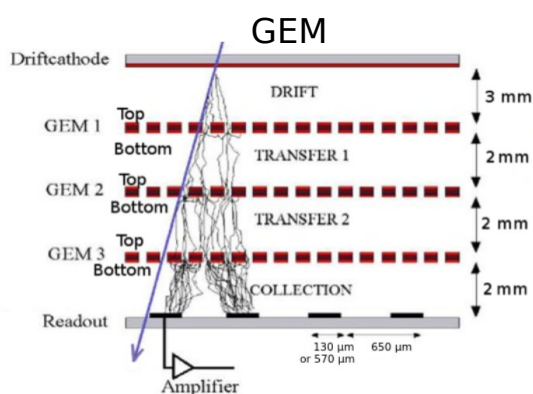
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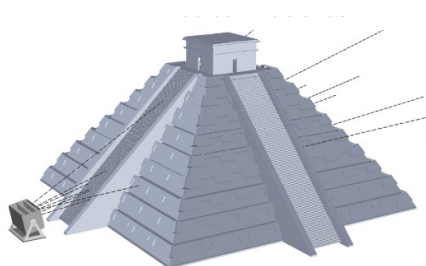
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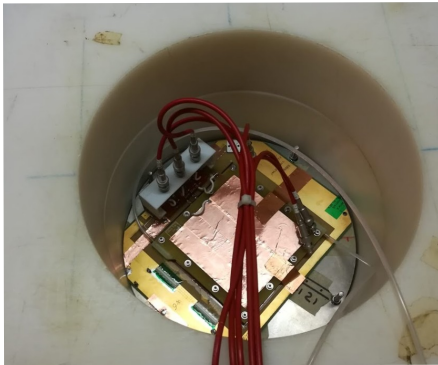
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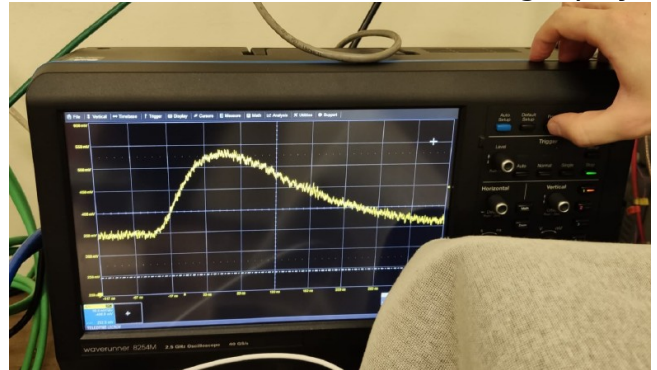
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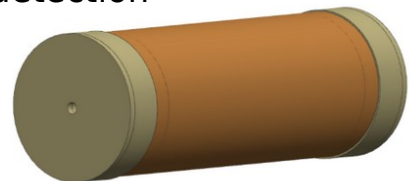
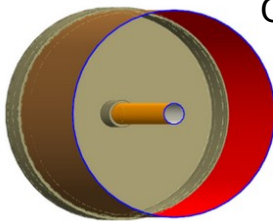
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