

Hands-on

7th Workshop on Diffraction and Ultraperipheral Collisions in Děčín

19/09/2024

Timea Szöllösová

Solangel Rojas Torres

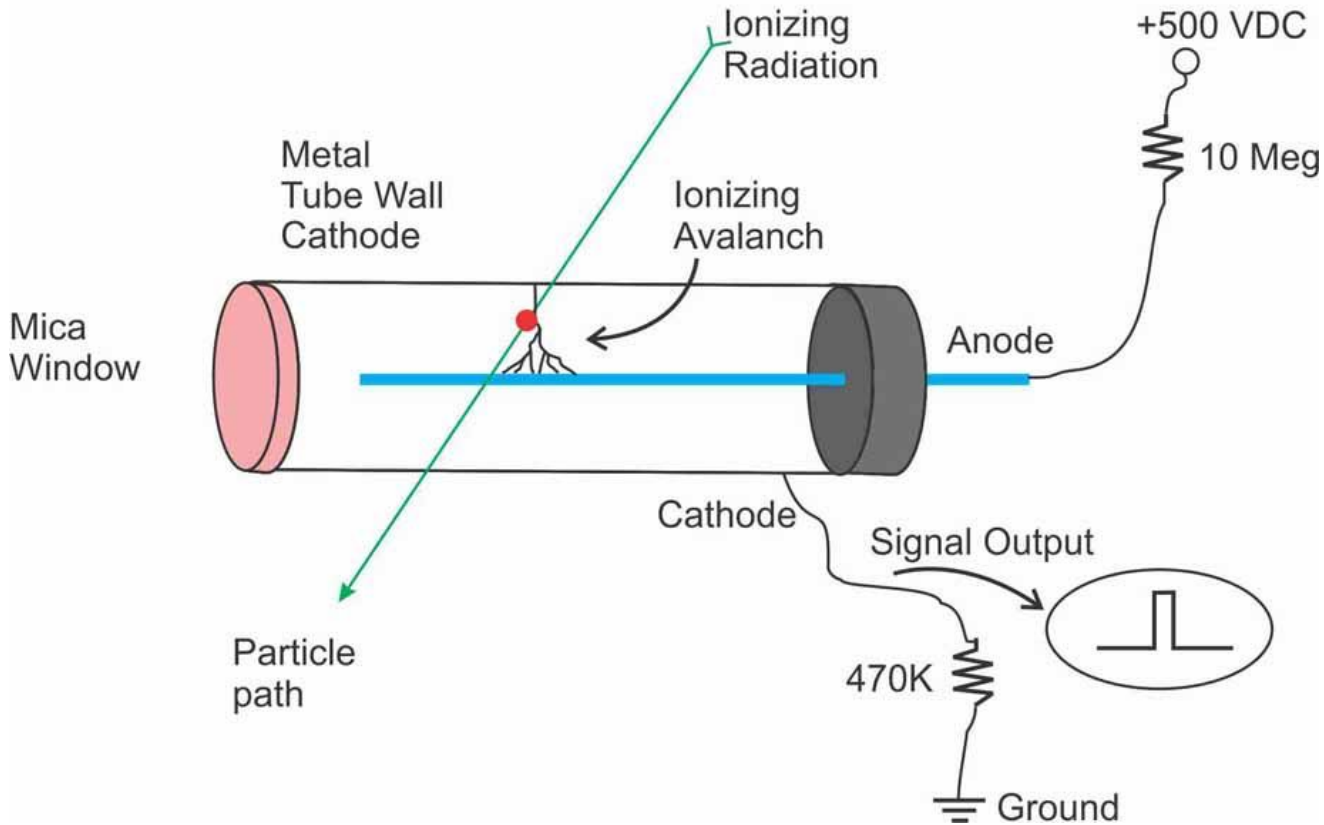
What is the simplest
detector you can think of?

ionisation chamber

proportional chamber

Geiger counter

Geiger Muller Tube



... we all saw this schematics way too many times (I hope). But how is it in real life?

A guy on youtube is promising us a geiger counter with just two aluminium tubes!

Well, we are experimentalist, so let's try it.



Johannes W. Geiger

1882–1945, Germany



- studied physics and mathematics
 - thesis about electric discharges in gases
- worked with Ernest Rutherford
 - gold foil experiment
- also with Walter Bothe, John M. Nuttall and James Chadwick
- had student Walther Müller
 - Geiger-Müller tube

- researched also cosmics and fission

During the world wars:

- WWI served in the German army
- WWII signed the petition against the Nazi government
 - didn't help Bethe :(

Links to play :)

- geiger kit we used:
<https://www.laskakit.cz/senzor-radiace-geigeruv-pocitac/#ratingTab>
- nice git about it:
<https://github.com/jveverka/rpi-projects/tree/pi4j-v2/rpi-radiation-monitor>
- the (un)convincing youtube guy:
<https://youtu.be/rIDNUoVsHe8?feature=shared>
- a more convincing lady (if you have some transistors at home):
<https://youtu.be/cfVBW622Vbs?feature=shared>