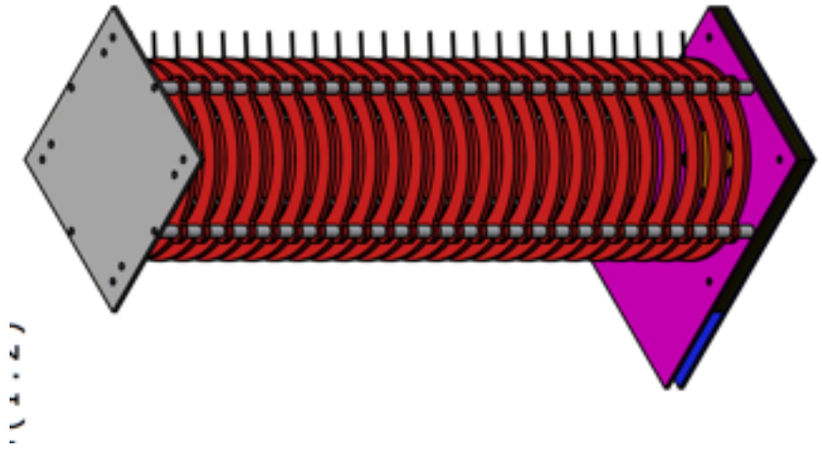
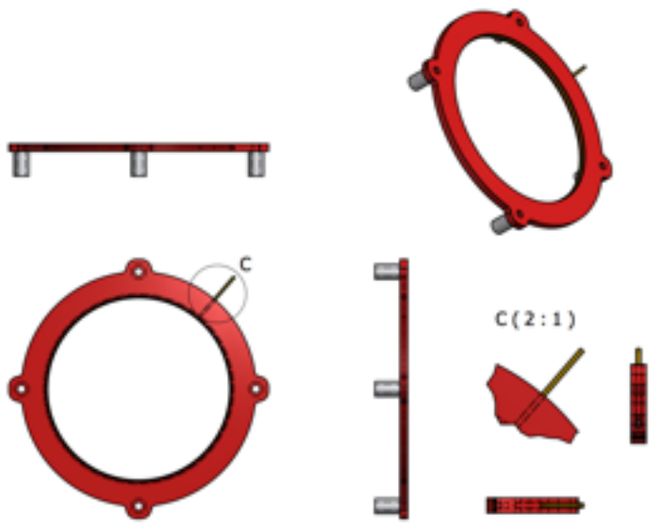
NITEC

# New field cage — prototype “zero” with 3D printer

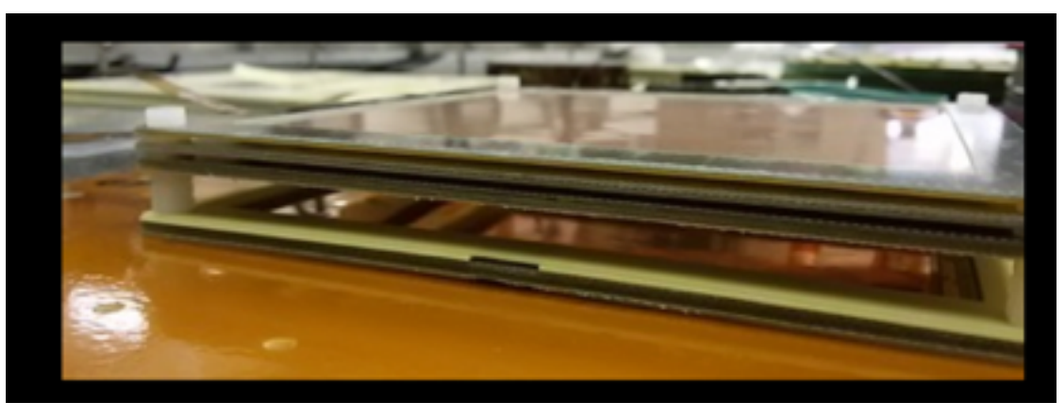




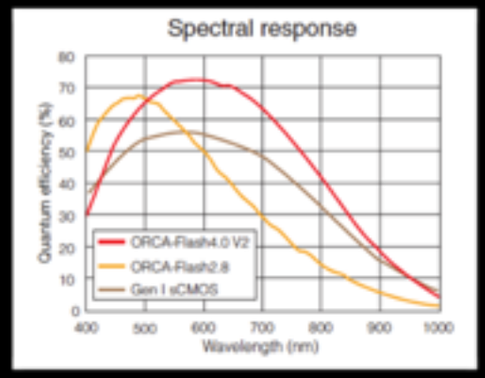

+ working on Ansys Maxwell E field simulation, ready soon

# CYGNUS-RD

# From the ORANGE project…

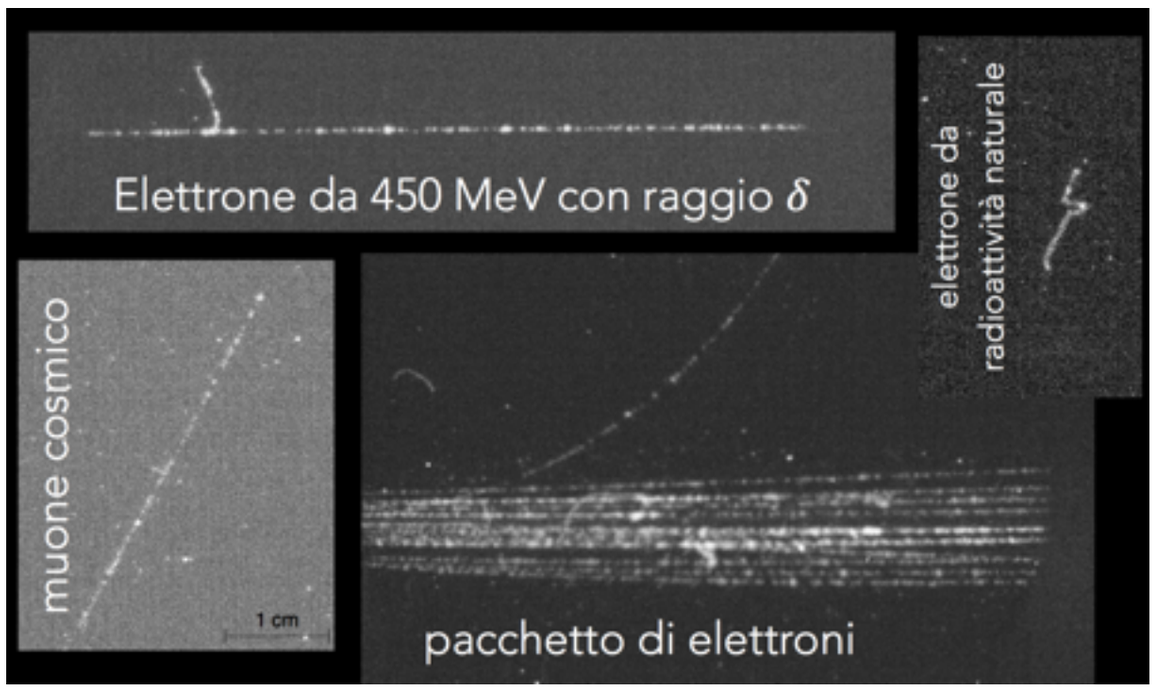


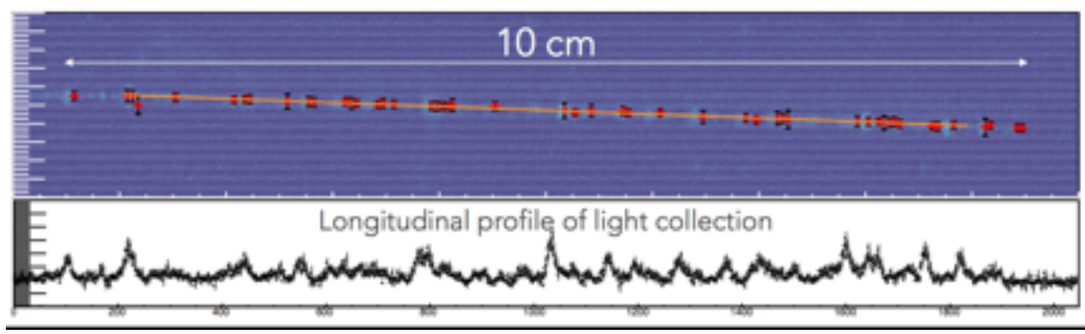

La tecnologia CMOS consente di avere sensori a basso rumore (1-2 elettroni per pixel) ed una QE del 70%;



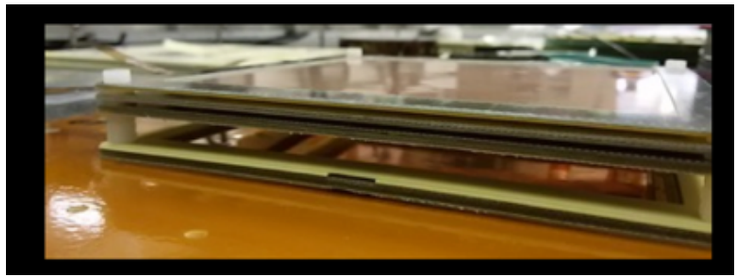

Camera Hamamatsu equipaggiata con obiettivo a grande apertura (f/0.95) e corta distanza focale (20 mm).

## ORANGE performances

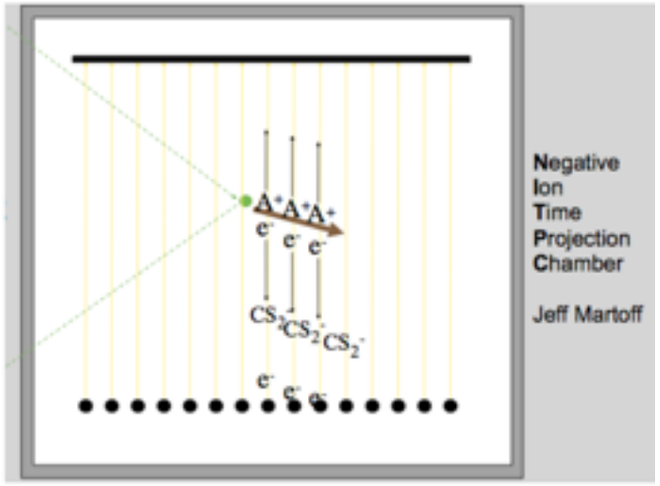


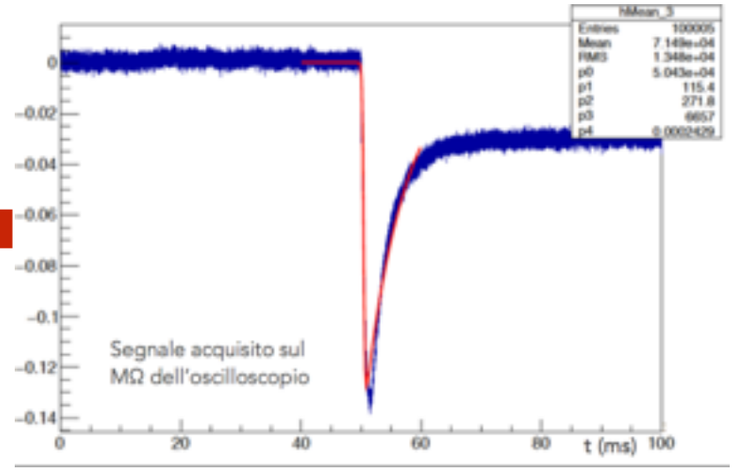
# …to CYGNUS-RD



+




+



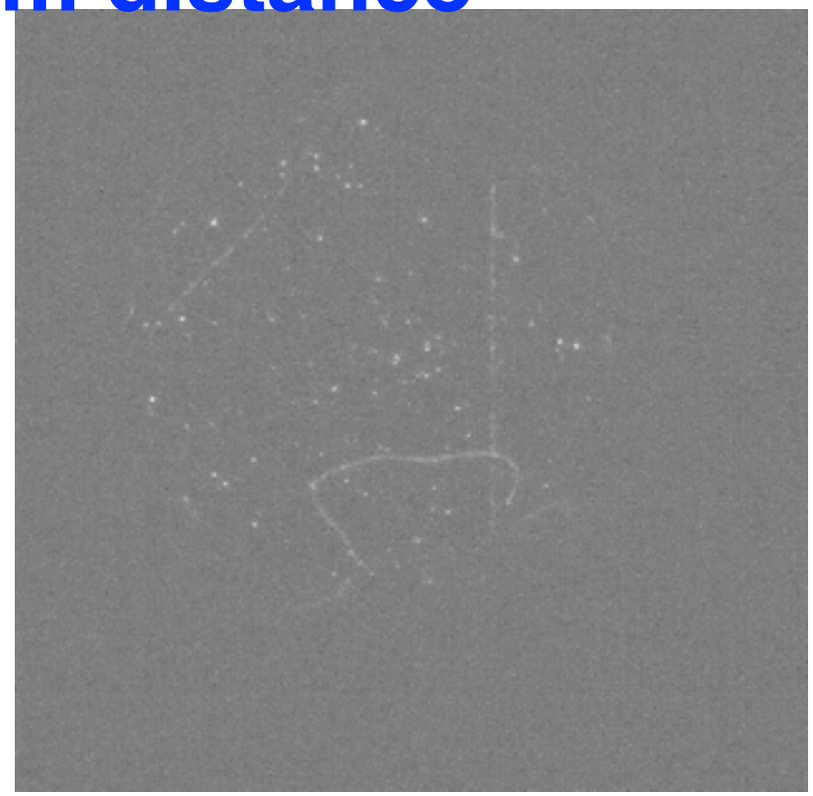

## ORANGE Negative Ion GEM signal readout

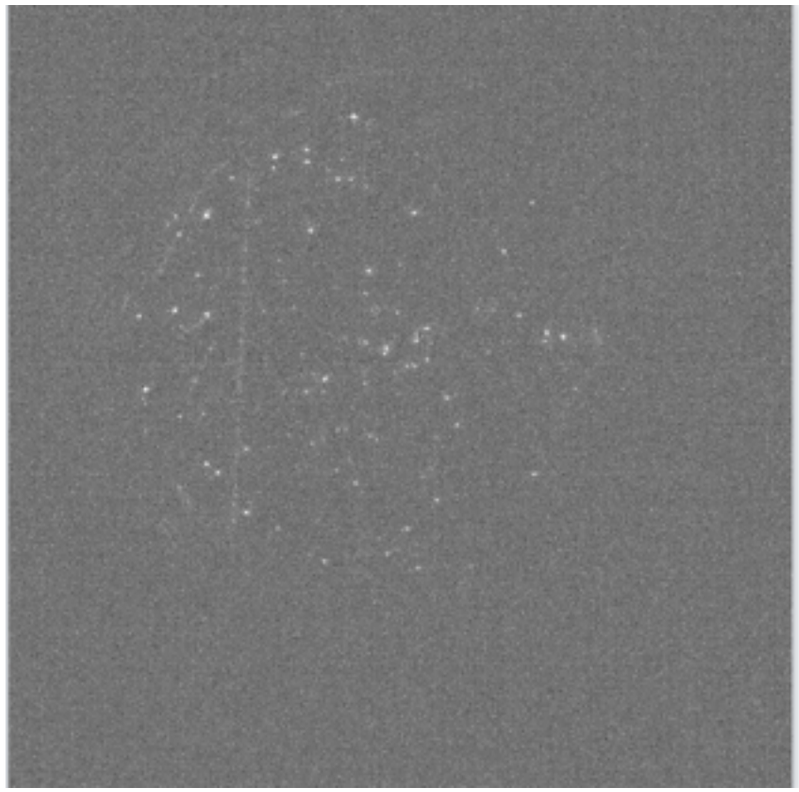
| | | | |
|---|---|---|---|
| RM1 | PINCI (RN, RL) | 0.2 FTE | 1.1 FTE |
| | CAVOTO | 0.2 FTE | |
| | DI MARCO | 0.2 FTE | |
| | RENGA | 0.3 FTE | |
| | VOENA | 0.2 FTE | |
| LNF | BARACCHINI (RL) | 1.0* FTE | 1.6 FTE |
| | MAZZITELLI | 0.4 FTE | |
| | TOMASSINI | 0.2 FTE | |
| | MURTAS | 0.0** FTE | |
| | | | 2.7 FTE |

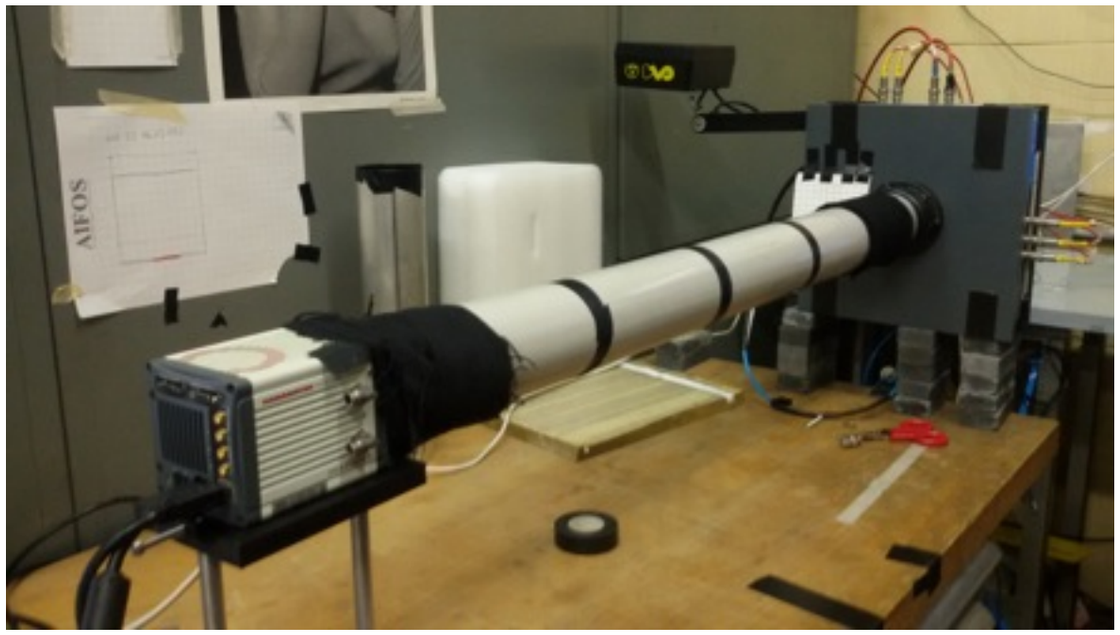
**+ 20k EURO funding**

# first CYGNUS-RD test

## at ~ 55 cm distance

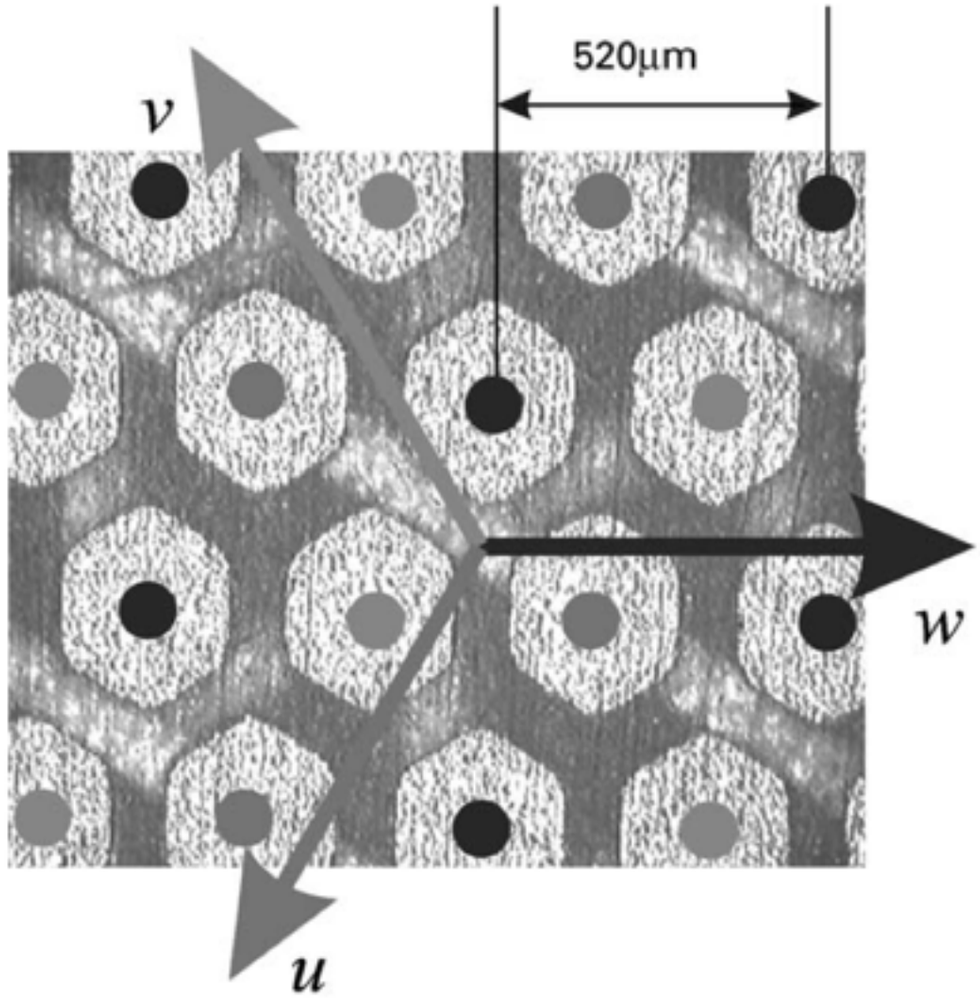







**able to detect light up to ~120 cm distance, i.e. ~ 60 x 60 cm**

# In the context of CYGNUS-RD, an alternative charge readout to be funded the second year




## the HEXABOARD readout —> see Francesco talk