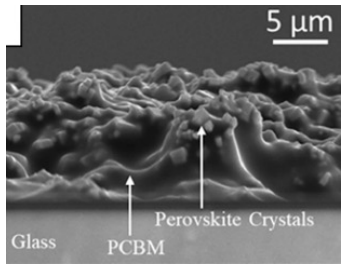
# ANEMONE

S. Tudisco

# Goal

National: L. Basiricò (INFN-Bo)
Local: S. Tudisco



printed perovskite

- **hAdroN bEam MONitoring by pErovskite based**

**Main goal**: development of the first HOIP (Hybrid Organic-Inorganic Halide Perovskites) thin film-based real-time direct detector for protons and carbon atoms, as beam monitor for hadron therapy

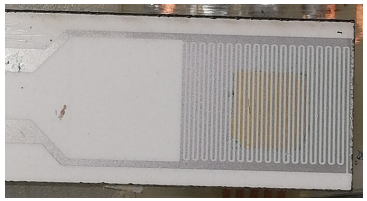
- *Synthesis, deposition and characterization of the hybrid perovskite active layer and device optimization*

  **Mixed 3D/2D Hybrid organic-inorganic halide perovskite:** $MAPbBr_3$/ $PEA_2PbBr_4$

  Deposited **from solution (spin coating) – Optimization of recipe** (on both glass and 125um thick PET substrate)

- *Deposition of $CsPbX_3$ thin films on PCBs* **(Set-up of the magneton sputtering system)**

**Film $CsPbCl_3$**
spessore: 500nm
Area: 3x3mm$^2$



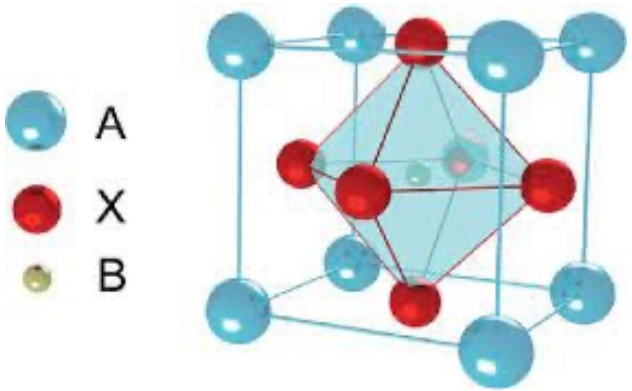
# Attivity 2024

- Complete measurements and characterization activities

**INFN-LNS**

*Montecarlo Simulations*

*Test-study and characterization*



# Potenziale output scientifico

- Medical thin printable devices
- Possible Patent

# Budget 2024

- 2 k€ missioni per analisi dati e calibrazioni a LABEC-FI
- 2k€ missioni per misure TIFPA - TRENTO
- 2 k€ consumo per radio-cromici.

# FTE

- S. Tudisco 0.1 FTE
- G. Lanzalone 0.2 FTE
- F. La Via 0.3 FTE
- S. De Luca 0.4 FTE
- G. Petringa  0.1 FTE

# Impatto su divisioni e servizi LNS, eventuali necessità di spazi

- Reparto Elettronica rivelatori