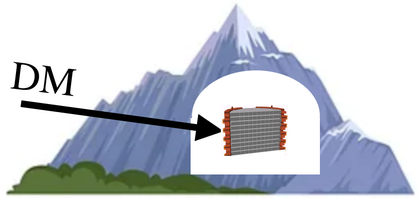
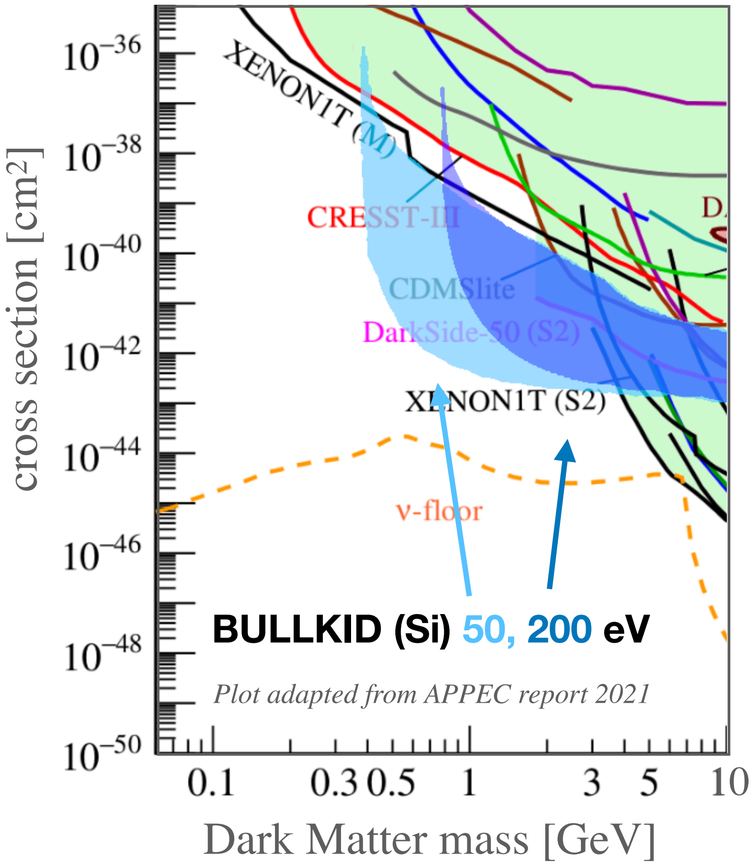
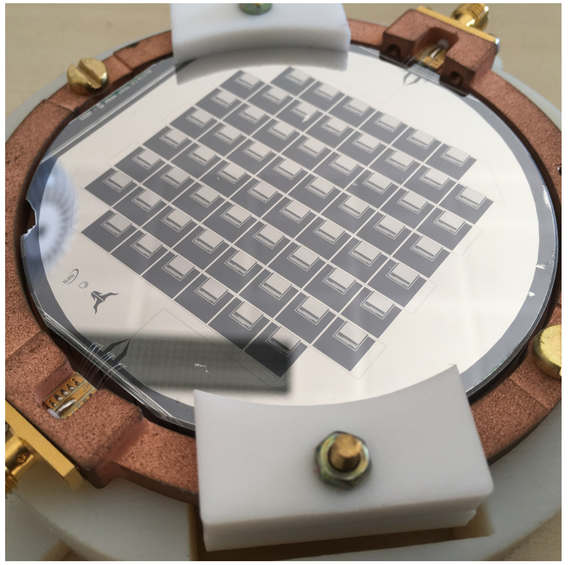
BULLKID-DM (INFN-CSN2) & DANAE (ERC)

Cryogenic detector using KIDs for a new Dark matter experiment





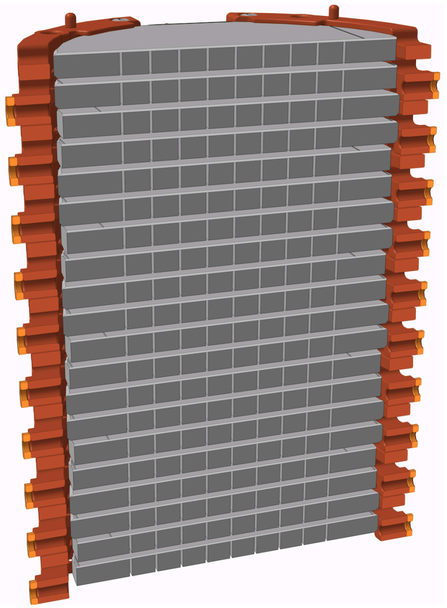
Current prototype
Array of 60 units,
160 eV threshold



A. Cruciani, et al, Appl. Phys. Lett., 2022

D. Delicato et al, arXiv:2308.14399

Goal
Array of > 2000 units
To be assembled in a clean room



Clean room ISO 6/7,
table of 2 mq + 3 mq of storage area,
use for few months,
in 2-3 years from now

Clean room @Sapienza

~100 mq microfabrication facility, al momento non prevede spazio libero

1. Laser writer
2. Evaporatore superconduttori
3. Evaporatore ossidi
4. Cappe chimiche (2)
5. Wire-Bonder
6. SEM (opzionale, dipende dal budget)

+ Wetlab separato per microfluidica / biofisica.

Classe 1000
pronta in 2 anni?