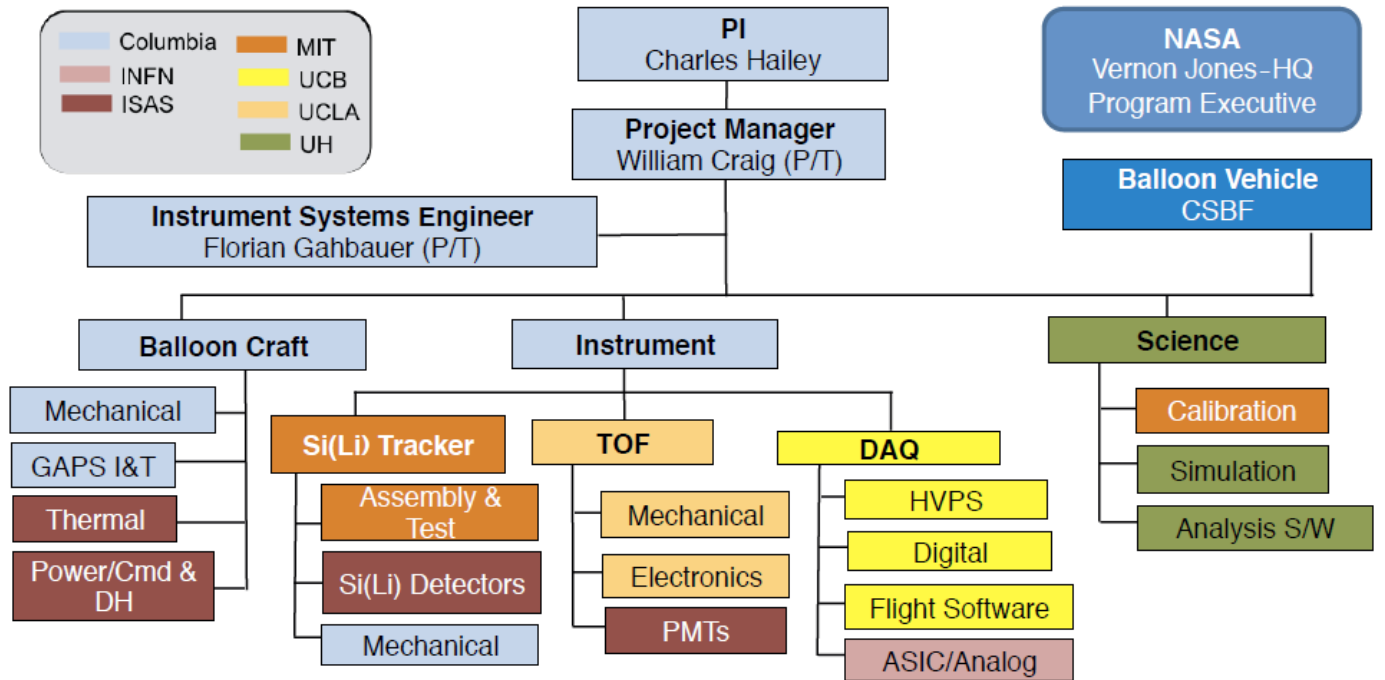
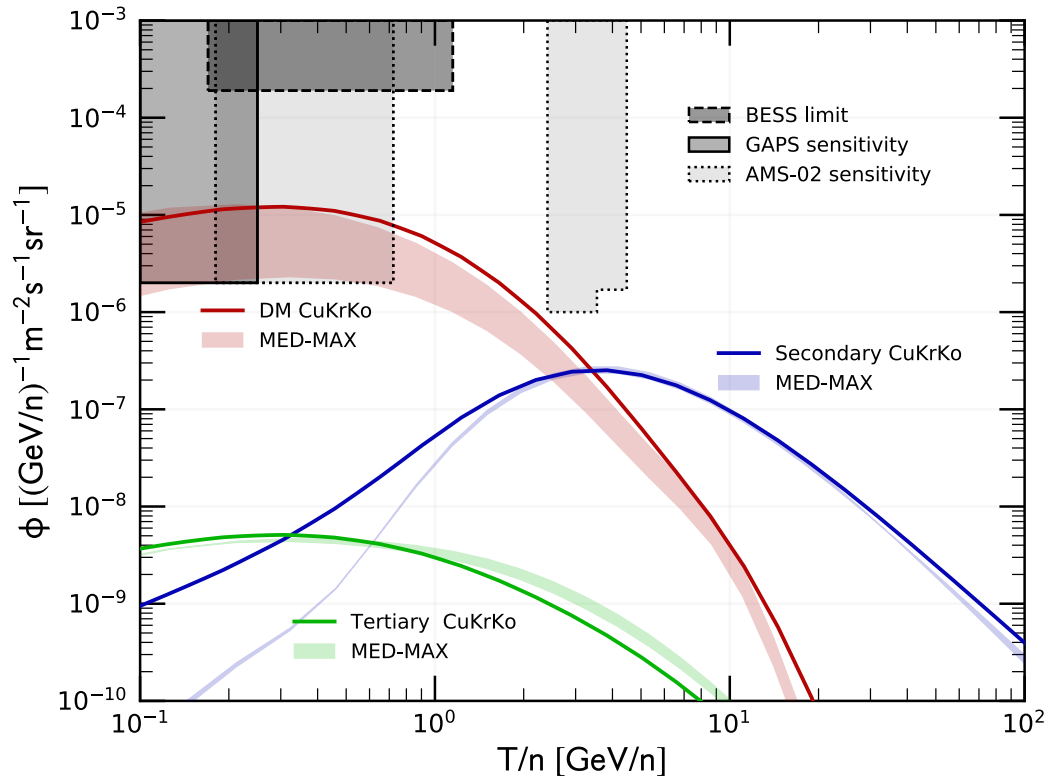


GAPS – General AntiParticle Spectrometer

Low energy antideuterons: serious hint of exotics -> DM

Designed to look for low-energy antiP and antiD (0.1 – 0.25 MeV)



GAPS - Italia

WP1 – Management – Boezio (INFN Trieste)

WP2 – ASIC – Zampa (INFN Trieste)

WP3 – Integrazione - Boezio (INFN Trieste)

WP4 – Simulazioni e data analysis – Vannuccini (INFN Trieste)

WP5 - Teoria – NF (INFN Torino)

Attività recenti:

Kick-off meeting ASI-INFN: fine 2018

Prima riunione di avanzamento ASI-INFN: 25 febbraio 2019

- Data di lancio nominale (primo volo con mandatory recovery): Q4 2020/Q1 2021
- Ritardata a fine 2021/2022 -> consegna contributo italiano Q4 2020

GAPS – Torino

N. Fornengo, F. Donato, M. Korsmeier (PhD student, UniTO + Aachen)

Attività teorica

2017

Donato, Korsmeier, Di Mauro

Prescriptions on antiproton cross section data for precise theoretical antiproton flux predictions

Phys.Rev. D96 (2017) 043007 (arXiv:1704.03663)

2018

Korsmeier, Donato, Fornengo

Prospects to verify a possible dark matter hint in cosmic antiprotons with antideuterons and antihelium

Phys. Rev. D97 (2018) 103011 (arXiv:1711.08465)

Korsmeier, Donato, Di Mauro

Production cross sections of cosmic antiprotons in the light of new data from the NA61 and LHCb experiments

Phys. Rev. D97 (2018) 103019 (arXiv:1802.03030)