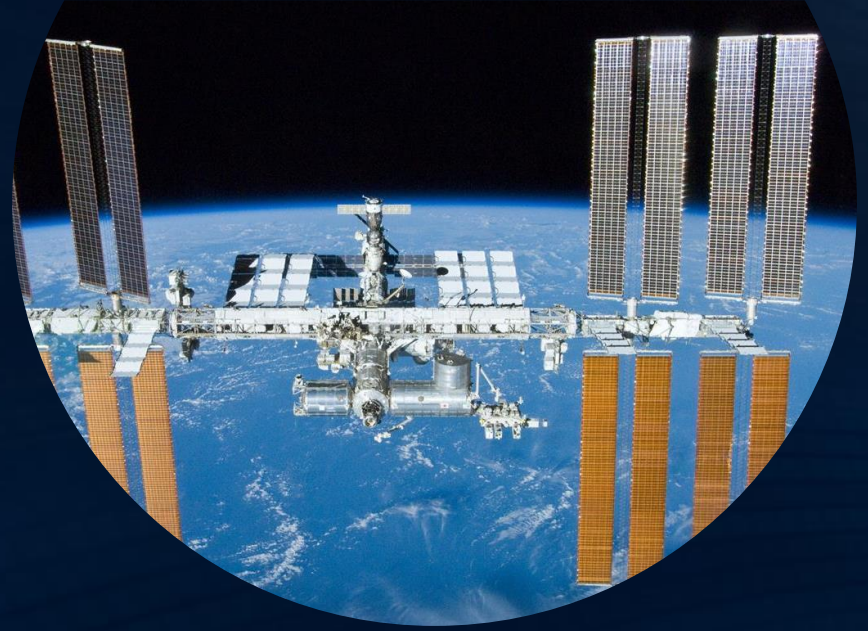


AMS ROMA-1 ACTIVITIES 2021-2022

CDS “PREVENTIVI”

ROME JULY 2021

AMS Roma-I group activities in 2021/22

- Support of AMS operations at POCC
- Research in Space Radiation (GCRs,…)
- Research in Space Radiobiology in collaboration with IRCCS University Hospital of Bologna (IRCCS-UHB)

AMS Roma-I People 2021/22

Alessandro Bartoloni – INFN (0.9 FTE)
Bruno Borgia – INFN & Sapienza (-)
Aboma Negasa Guracho – AdR INFN Roma (1) – Starts in July 2021
Giuseppe Della Gala – IRCCS UHB (0.3)
Giulia Paolani - IRCCS UHB (0.3)
Miriam Santoro – IRCCS UHB (0.3)
Lidia Strigari – IRCCS UHB (1)
Silvia Strolin – IRCCS UHB(0.3)
Vincenzo Valente – GARR Associate & INFN (-)

*One AdR selection on going (1)

FTE e Richieste (Keuro) per il 2022				
Persone			FTE	
9			4.1+1*	
Missioni	Consumi	Servizi	Inventariabile	Totale
23	4	1	3	31

Roma-I group supports AMS operations at POCC-CERN since 2011

-

2 persons
8 blocks x 6 days
06/2020-06/2021

SPAZIO Mercoledì 19 maggio 2021 - 11:59

Spazio: 10 candeline per rivelatore di particelle cosmiche AMS-02

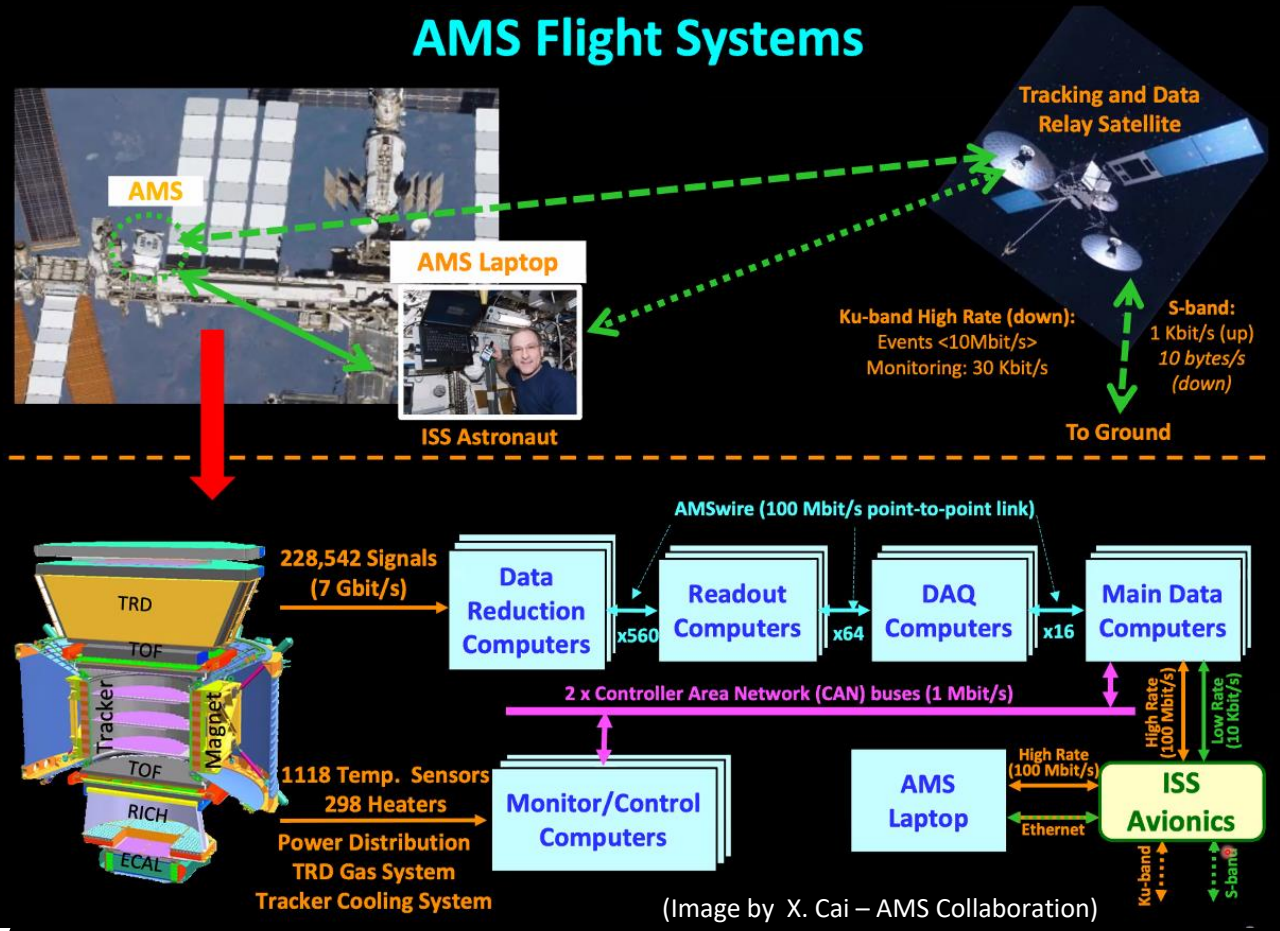
Dall'esterno della ISS cerca segnali di antimateria primordiale

Dieci candeline per AMS-02 il cacciatore di anti materia molto italiano

ANTONIO LO CAMPO

PUBBLICATO IL
20 Maggio 2021

AMS Flight Systems



(Image by X. Cai – AMS Collaboration)

Buon compleanno Ams-02, 10 anni di caccia all'anti-materia primordiale

adnkronos

19 maggio 2021 | 13.43
LETTURA: 5 minuti

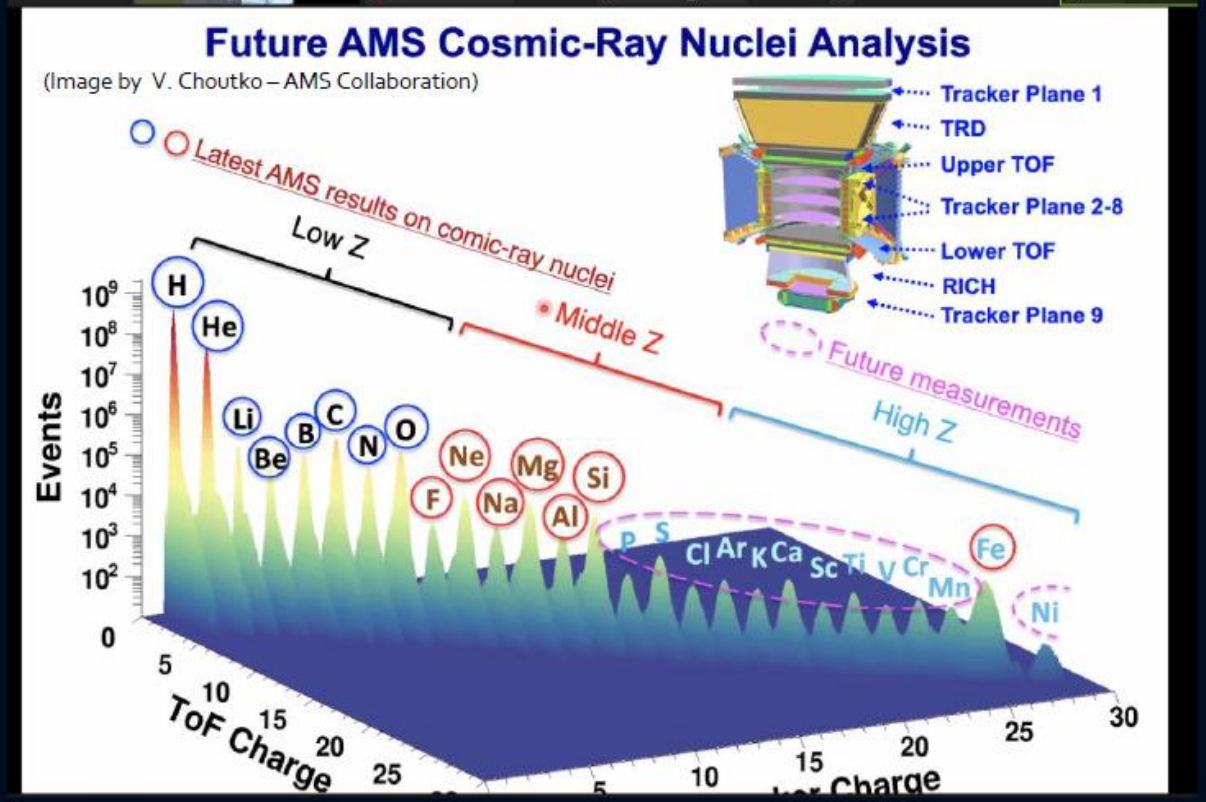
Al lavoro sulla Stazione Spaziale Internazionale dal 2011, il rivelatore di particelle cosmiche ne ha analizzate già 170 miliardi

AMS PRL published HEP spires statistics (06/2020 vs 06/2021)

AMS is the only magnetic spectrometer in space.
The results from AMS are unlocking the secrets of the cosmos.
AMS will continue to take data for the ISS life time.

Citation summary results	*2020*	*2021*
Total number of papers analyzed:	17	20
Total number of citations:	4064	4942
Average citations per paper:	239	248
Breakdown of papers by citations		
Renowned papers (500+)	3	4 (3%)
Famous papers (250-499)	4	4 (2%)
Very well-known papers (100-249)	1	3 (0.3%)
Well-known papers (50-99)	3	4
Known papers (10-49)	4	3
Less known papers (1-9)	2	2
Unknown papers (0)	0	0

in parenthesis the
AMS papers / INFN RM papers*100 ratio
Period is 2012-2021



Properties of Iron Primary Cosmic Rays: Results from the Alpha Magnetic Spectrometer
AMS Collaboration • M. Aguilar (Madrid, CIEMAT) et al. (Jan 29, 2021)
Published in: *Phys.Rev.Lett.* 126 (2021) 4, 041104

Properties of Heavy Secondary Fluorine Cosmic Rays: Results from the Alpha Magnetic Spectrometer
AMS Collaboration • M. Aguilar (Madrid, CIEMAT) et al. (Feb 25, 2021)
Published in: *Phys.Rev.Lett.* 126 (2021) 8, 081102

AMS/SPRB-2020/2021

2020 INFN Roma research activities on SPRB

- Poster on the topics presented at IEEE-NSS MIC 2020 Conference
- Participation to «ESA call for ideas for a European Lunar Lander»
  - The proposal was selected for two different Payload (on going)
  - Partecipation to the preparatory meetings
  - Inclusion in the ESA Topical Teams on the subject

2021

- One new person (AdR) in the group since July 2021 and a new one expected in the next months
- RAD9 (accepted oral talk – conference in June not possible to be in presence)
- GLEX 2021 (accepted oral talk (in presence…) – proceedings papers in publication)
- Review on «space radiobiology models» submitted
  - Medical Application and Radiobiology Research of Particle Radiation Frontiers journal
- Outreach activities
  - Organization and participation at the Space4Women initiative sponsored by the ONU-UNOOSA
  - Partecipation at "Uno Spritz di Antimateria" to celebrate the AMS 10 years in space (INFN)
- EPS-HEP 2021 oral-talk on the topics in July
- INFN course on SPRB in preparation for September/October 2021
- IAC-2021 conference oral talk (October 2021)
- ……