CALET: CALorimetric Electron Telescope

JAXA(Japan), NASA(US), ASI(Italy).

– Ops on ISS from JFY 2014. Currently in PFM phase.

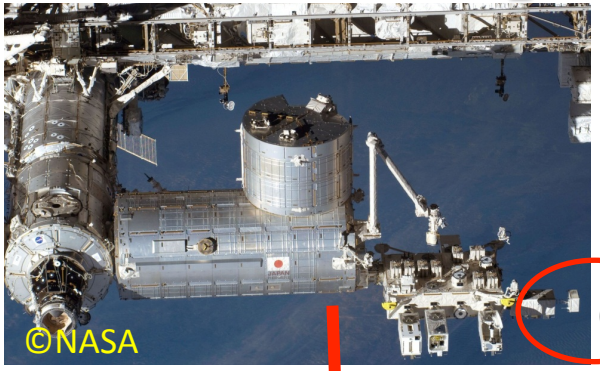
Calorimeter (**CAL**) (X_0: radiation length)

Charge detector+ Imag. Cal. (3 X_0)+ TASC (27 X_0)

Gamma-ray Burst Monitor (**CGBM**)

LaBr3(Ce) + BGO : Sensitivity >~10^{-8} erg cm^{-2} s^{-1} (1-1000 keV).

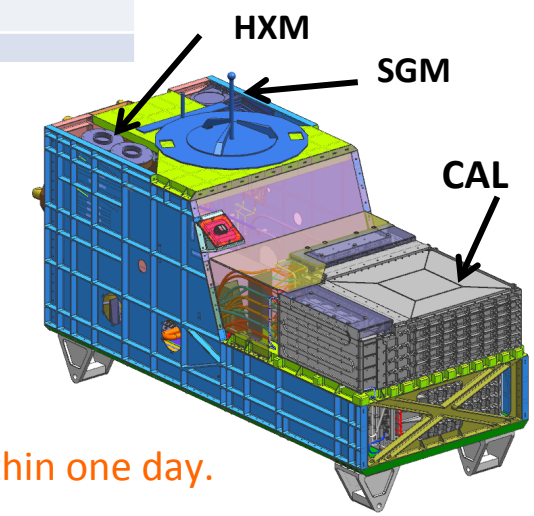
Broad energy range (keV - TeV gamma-rays): long/short-duration GRBs, X-ray flashes, GeV GRBs.



CALET onto Port #9

Moving direction

Parameters	CAL	CGBM
Energy range	1 GeV - 10 TeV (GRB trigger)	HXM: 7 keV - 1 MeV (goal 3 keV - 3 MeV) SGM: 100 keV - 20 MeV (goal 30 keV - 30 MeV)
Energy resolution	3% (10 GeV)	HXM: ~3% (662 keV) SGM: ~15% (662 keV)
Effective area	~600 cm^2 (10 GeV)	68 cm^2 (2 HXMs), 82 cm^2 (SGM)
Angular resolution	2.5° (1 GeV) 0.35° (10 GeV)	-
Field of view	~45° (~2 sr)	~3 sr (HXM), ~4π sr (SGM)
Dead time	2 ms	40 μs
Time resolution	62.5 μs	Triggered data: 62.5 μs (event-by-event data) Regular data: 125 ms with 8 ch, 4 s with 512 ch



CALET deliverables to LVC:

Fine time resolution (<125 ms) light curve of GRB/EM transient from CGBM within one day.

GRB spectra (CGBM) within a few days (if position available).

Very preliminary CAL data within a few days. Complete data will be provided for publication.

CALET Team -@Chicago, Sep.10, 2013