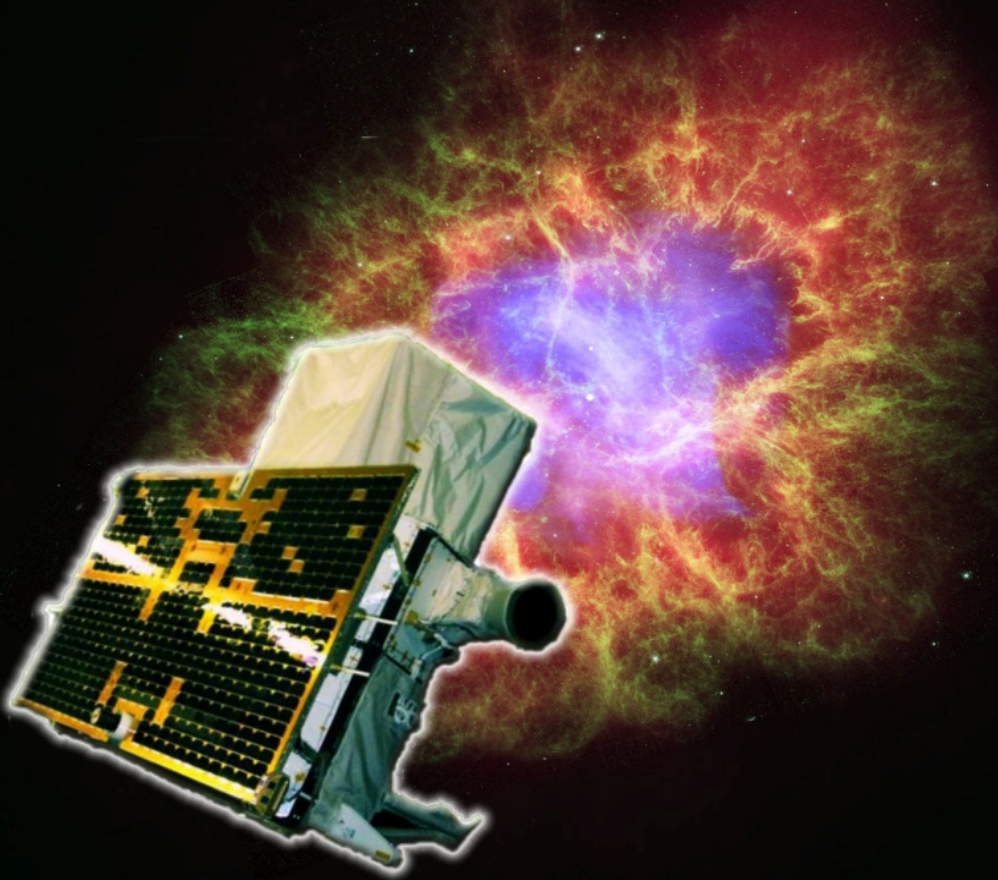


# AGILE in its 10-th year in orbit

- *excellent sensitivity, FoV & speed for searches of GW sources: a dedicated program*
- nominal performance
- ideal in the range 50 MeV – 1 GeV
- the fastest response (1-2 hrs) to transients
- Galactic & extragalactic science
- 2-nd AGILE Catalogue
- unique for terrestrial gamma-ray flashes



# AGILE and GW astrophysics

- **new operational mode for AGILE**
- **very fast reaction to external GW trigger**
- **new processing pipeline**
- **great potential for fast discovery of gamma-ray transients associated with NS-NS, NS-BH, and BH-BH coalescences**
- **AGILE-GW new Key Project: AGILE can play a key role in the study of GW waves**

# AGILE in spinning: revolution including $T_0$ of GW150914

Integration:  $T_0 - 120\text{s}$  --  $T_0 + 300\text{s}$  Sep14,2015

fov=70, albrad=70; ALL event types

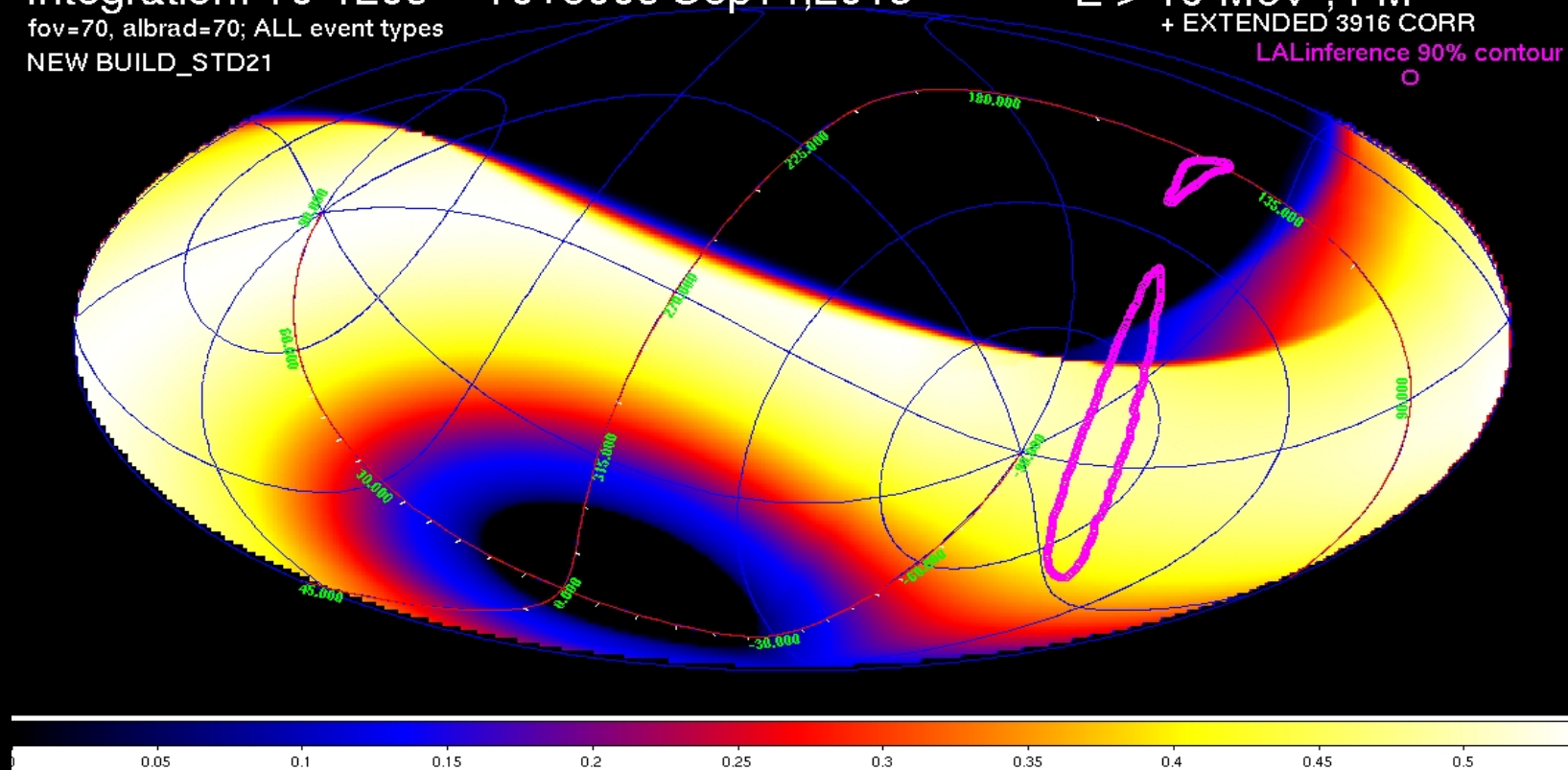
NEW BUILD\_STD21

$E > 10\text{ MeV}$ ; FM

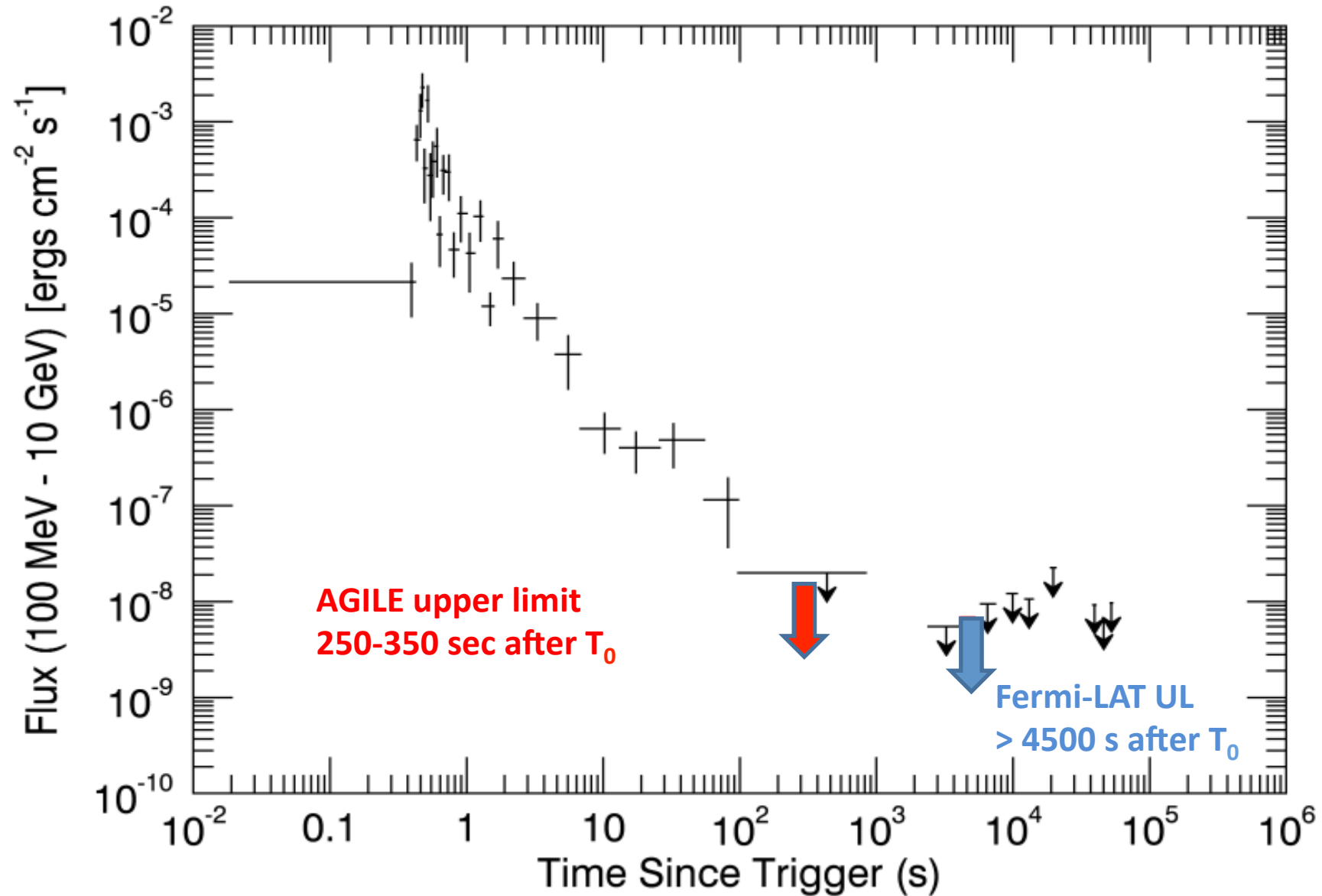
+ EXTENDED 3916 CORR

LAL inference 90% contour

○



## AGILE and Fermi-LAT upper limits in the GRB090510 lightcurve (repositioned at $z = 0.1$ , adapted from Fermi-LAT Collab., 2016)



**AGILE-GRID provided the most stringent constraint to any delayed emission above 50 MeV shortly after the GW150914 event**

**AGILE-MCAL did not detect the transient reported by the Fermi GBM team**

**Great potential for AGILE observations of GW error boxes: prompt, minutes, hours, days**