LIGO / Virgo Town Hall Meeting

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Amsterdam, The Netherlands

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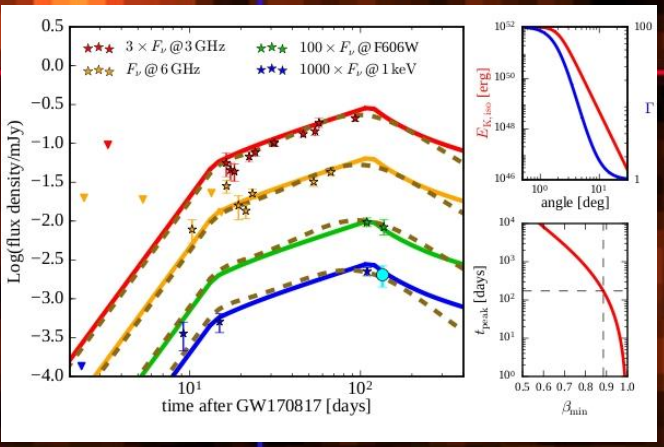
Evidence for a decreasing X-ray afterglow emission of GW170817A and GRB 170817A

- XMM-Newton observation on the 29th December 2017: 135 day after the event
➔X-ray light curve started to decrease
➔ i) a structured jet
➔ii) a sotropic fireball



P. D'Avanzo et al., 2018, arXiv:1801.06164

XMM-Newton TOO Observations of LIGO-Virgo events

XMM-Newton Project Scientist has "Discretionary Time", which will be used to observe LIGO-Virgo events

XMM-Newton is not designed for quick Target of Opportunity (TOO) observations

Scientists in the SOC (& MOC) make it possible, e.g. they are physically going to SOC, manual interruption of ongoing observation, re-planning, rescheduling, etc….

Reaction time 6 to 12 hours

However, there are several constraints:

- **Physical constraints: visibility, antenna, ground station handovers, radiation belt…**
- **Scientific constraints: time critical observations, observations performed simultaneous with other facilities…**

The Time Allocation Committee has accepted many anticipated Target of Opportunity Proposals to follow GW events

Data collected by ESA missions must become public after 1 year.

It is very important that any MoU does not contradicts this rule of ESA