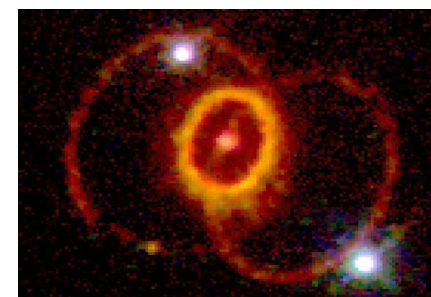


# STATUS OF LVD EXPERIMENT

A.Molinario on behalf of the LVD collaboration

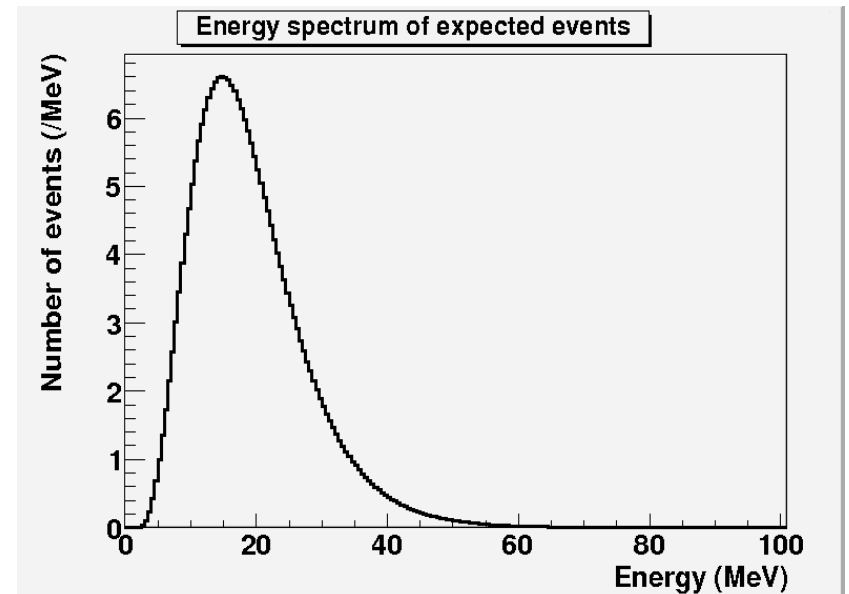


1kton liquid  
scintillator neutrino  
observatory  
@  
Laboratori Nazionali  
del Gran Sasso  
(Italy)



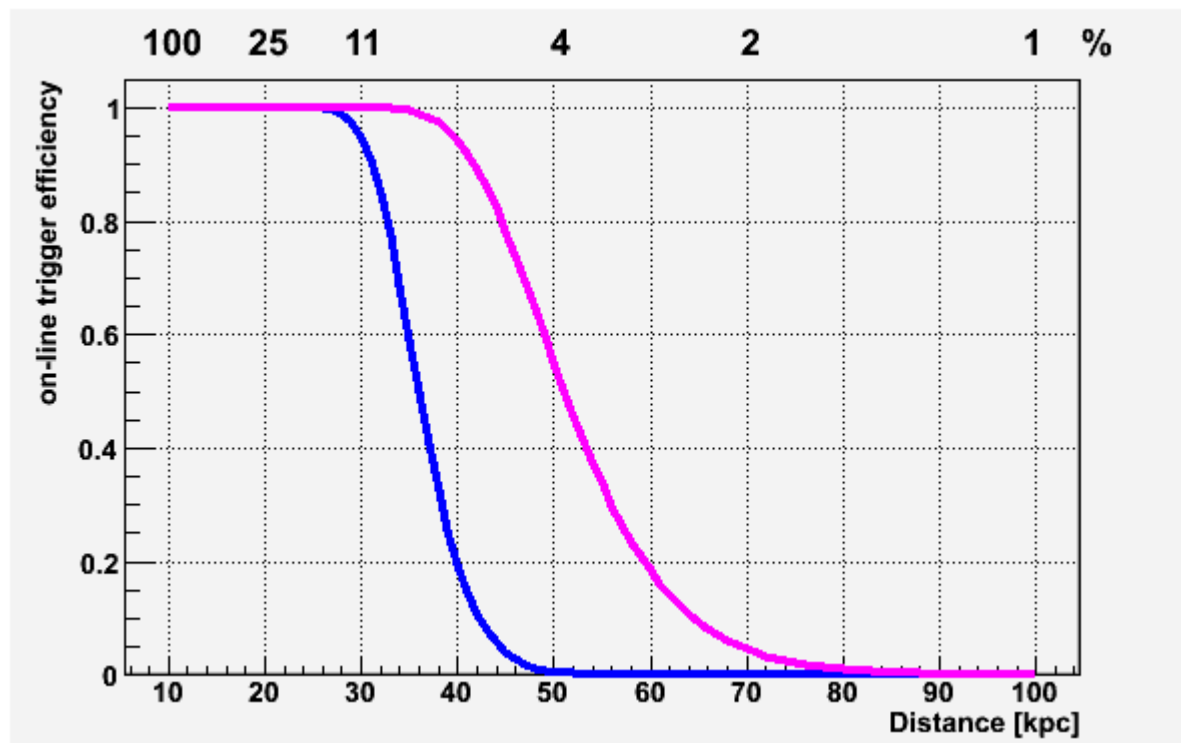
Particularly suited to  
look for neutrino  
bursts from  
gravitational stellar  
collapses in our  
Galaxy

**Expected neutrino signal** for a supernova **10 kpc** away from us: → around **300** triggers in **20 s**.



*% of SN1987A  $\nu$  flux*

*Detection Efficiency*



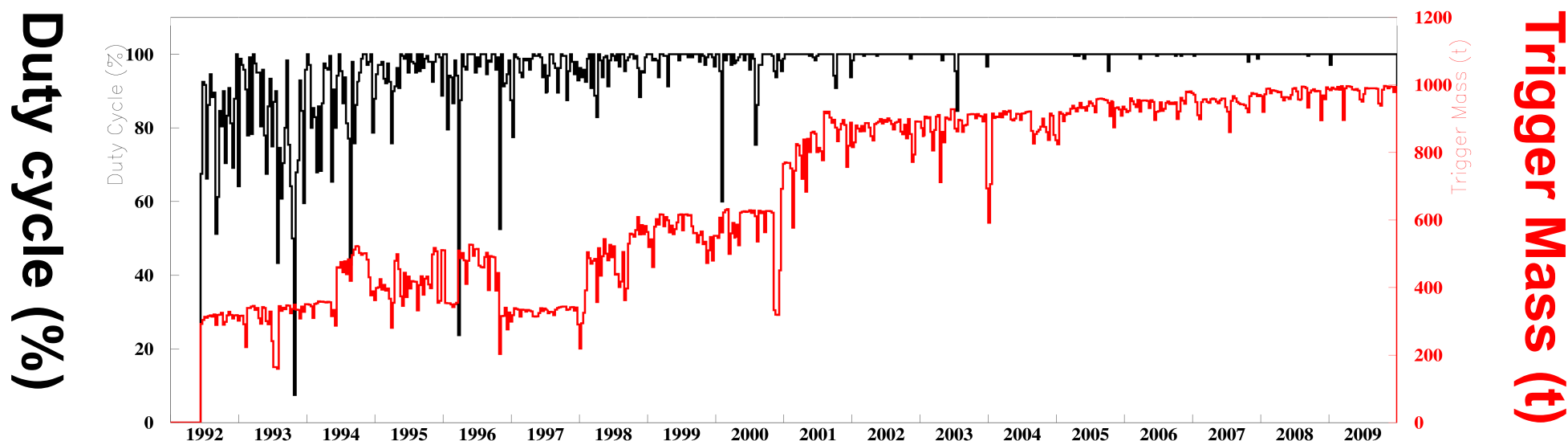
*Distance (kpc)*

**Full efficiency** for supernova neutrino burst detection up to **30 kpc**

Triggers above **7 MeV**

Triggers above **10 MeV**

**LVD has been continuously monitoring the whole Galaxy for 18 years with a very high duty cycle and trigger mass.**



**NO NEUTRINO BURST CANDIDATE SELECTED IN THE WHOLE PERIOD**  
**June 6<sup>th</sup> , 1992 – May 31<sup>st</sup> , 2010**

***The limit to the supernova rate in the Galaxy is***  
***0.14 / year (90% c.l.)***

# Moving to the new DAQ

We are moving to the new DAQ server. We plan to complete this business by the end of July.

All tests performed up to now went well.

This operation will not affect SNEWS connectivity at all.