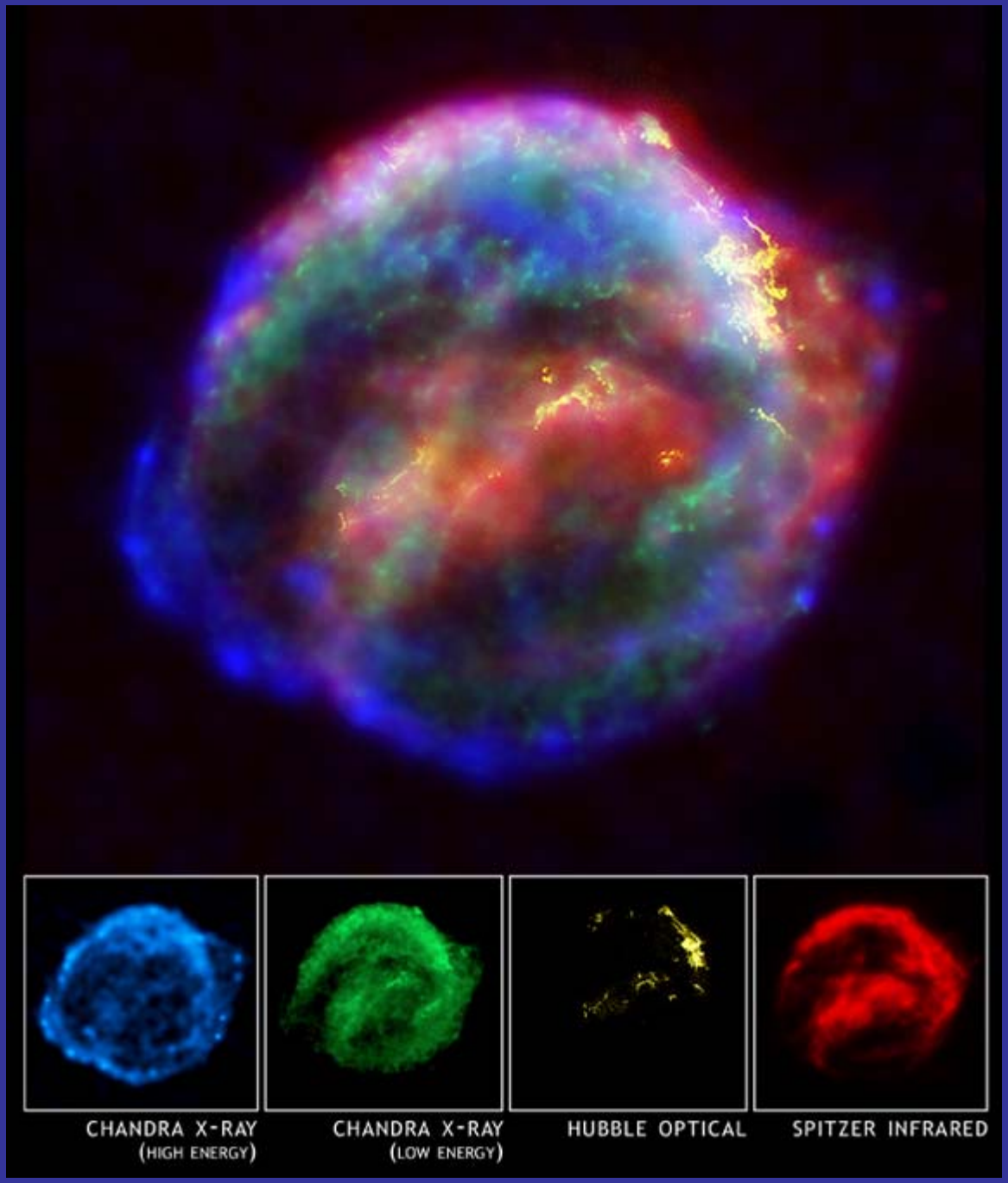
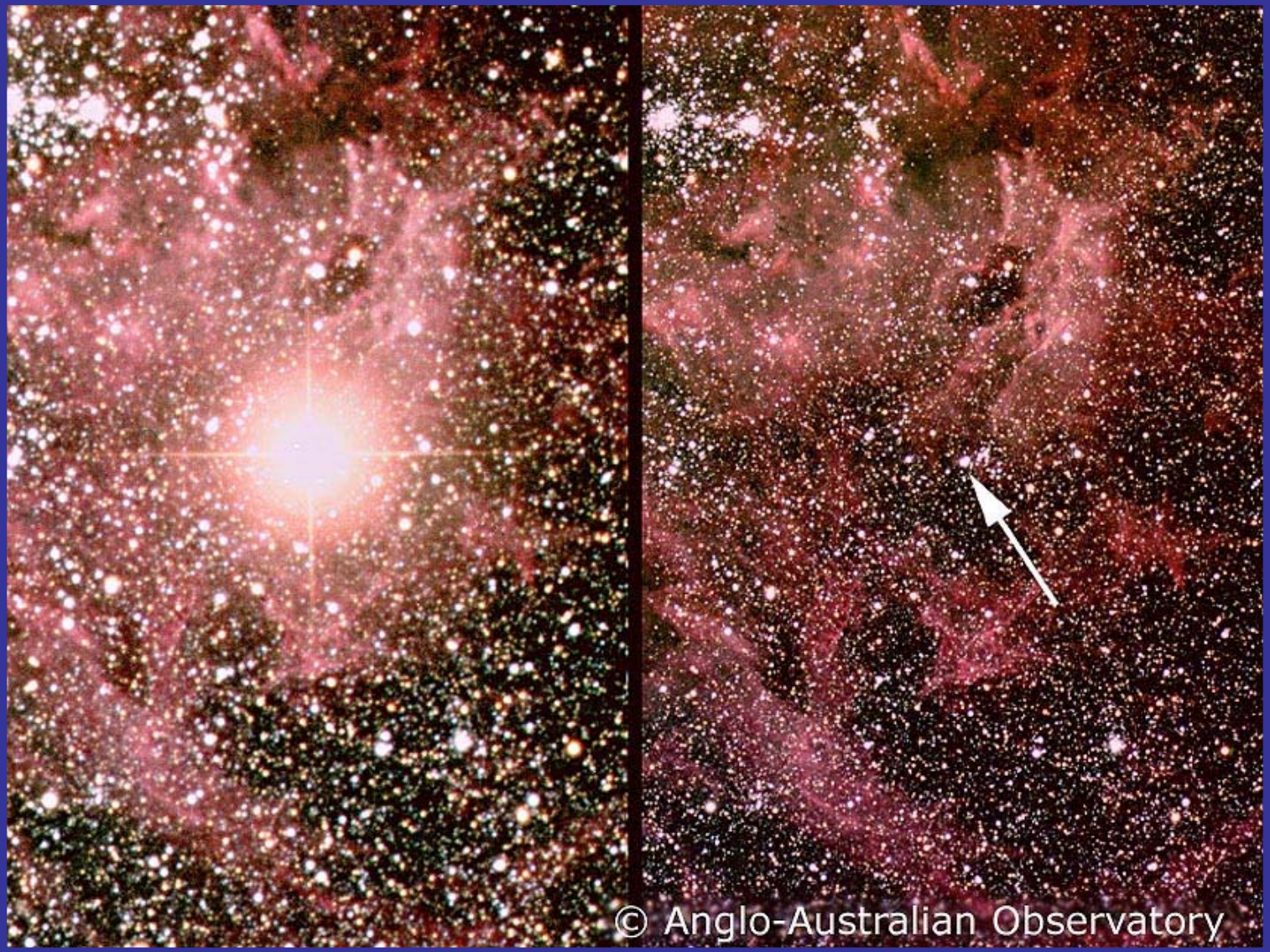
Conclusioni ?
Commenti

SN1604

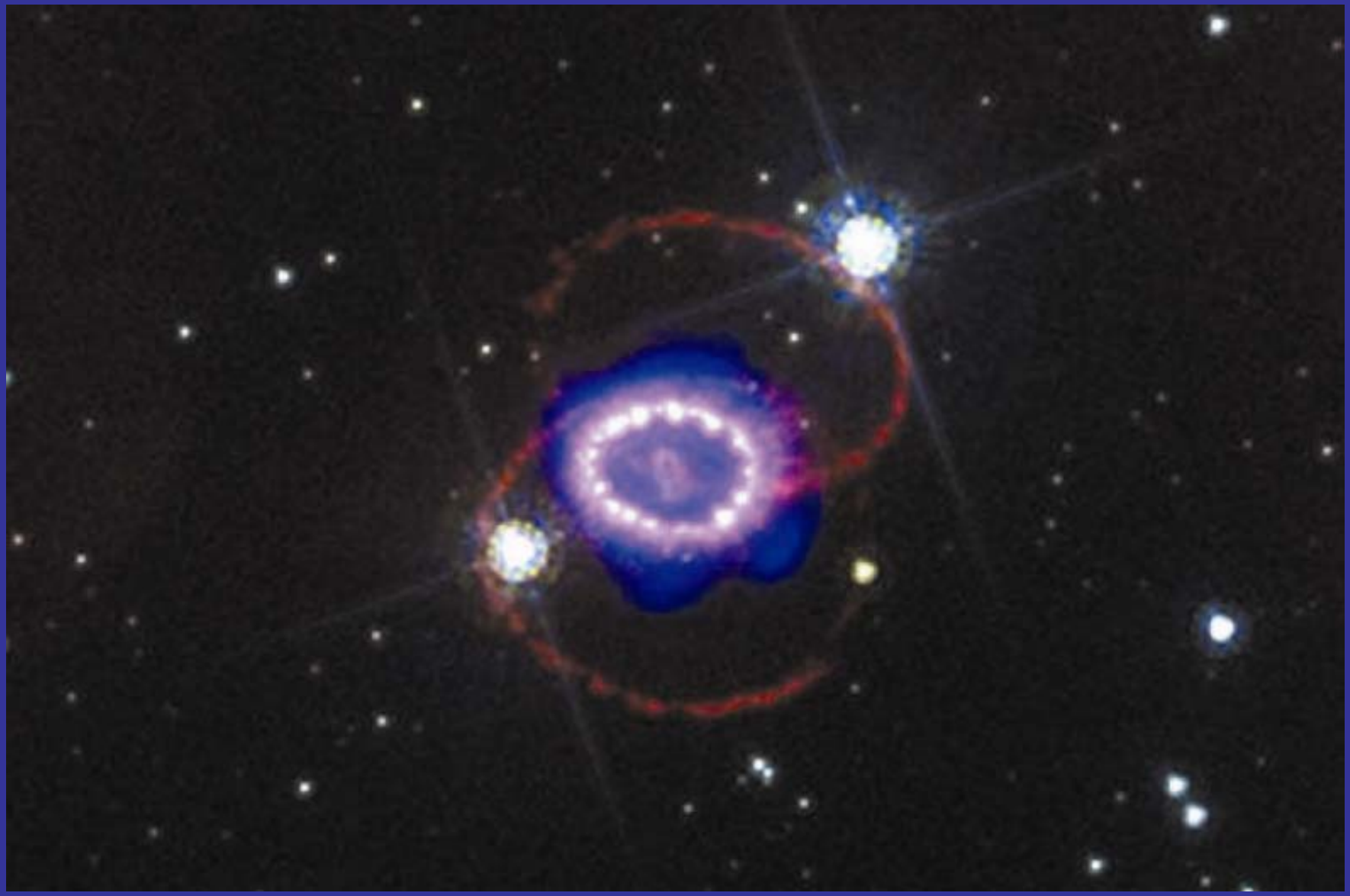
Cancella l’astronomia antica



SN1987A
Quattrocento anni dopo



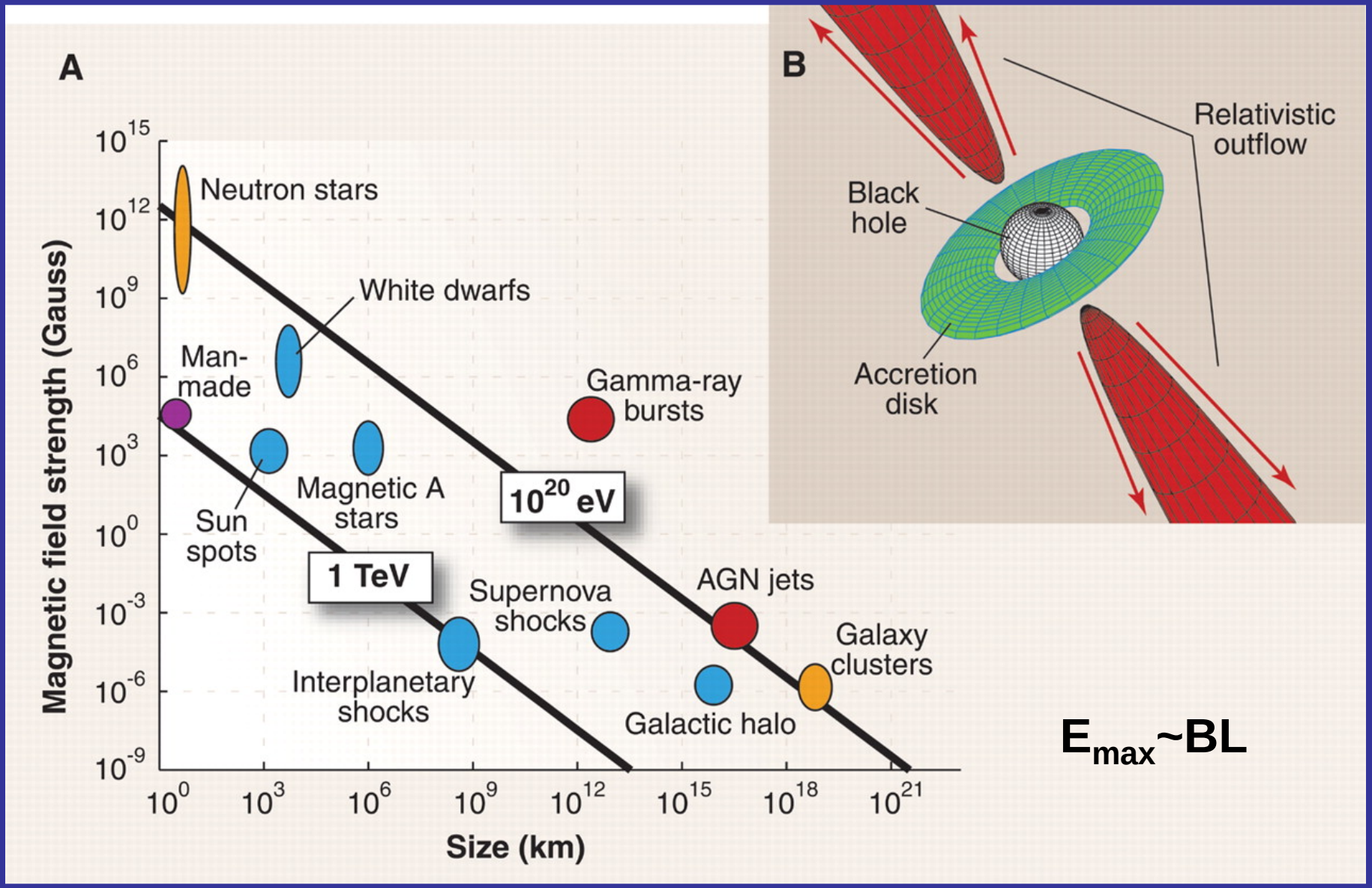
Vent’anni dopo



- Che cosa ci ha insegnato questa supernova ?
- Occasione per sperimentare nuove tecniche per l’astronomia
  - Neutrini
  - Onde gravitazionali
- Astrofisica delle alte energie
- Astrofisica particellare
- Nuovi strumenti per investigare il cosmo

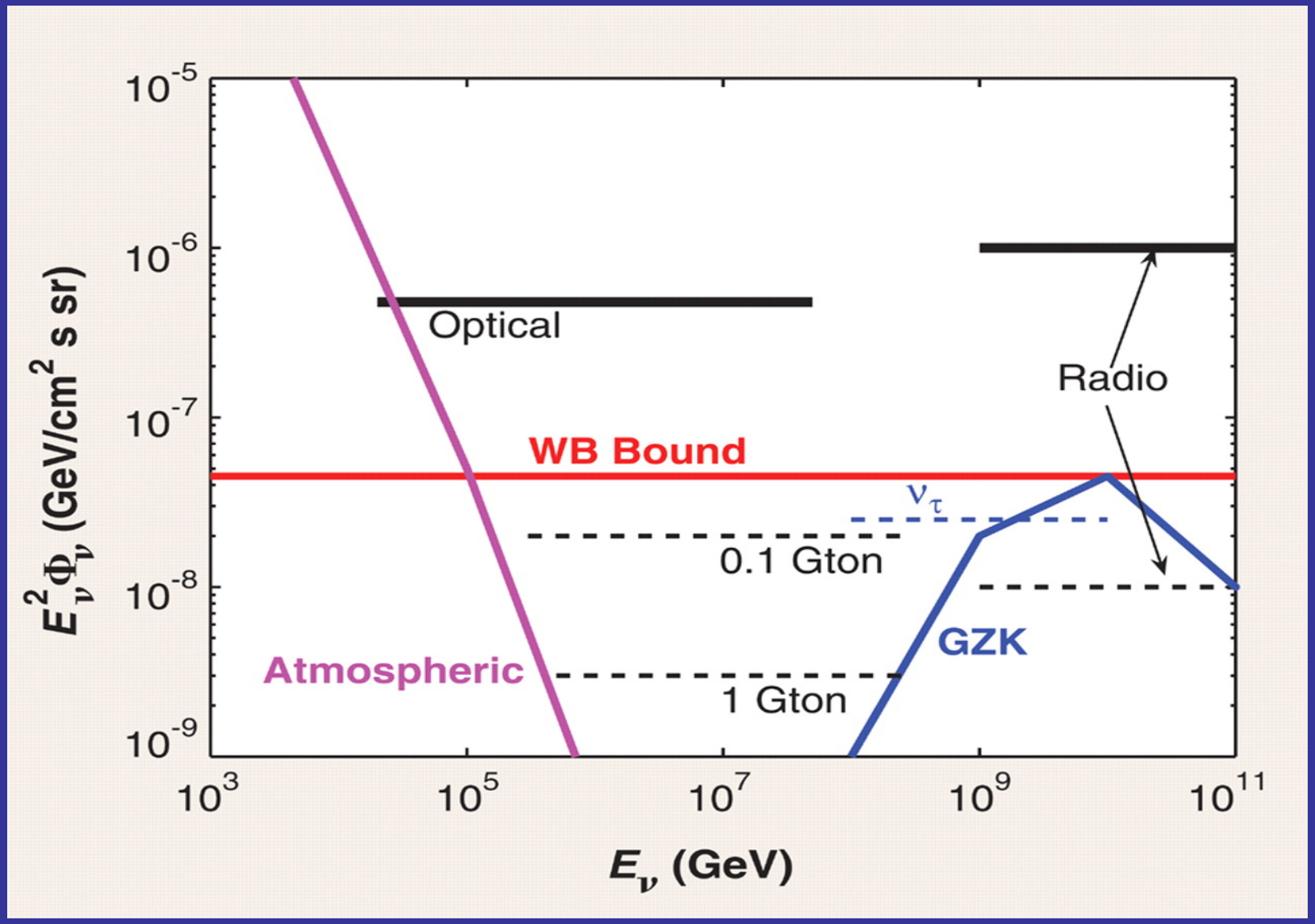
- Neutrini solari:
  - conferma dei modelli stellari, fasi termonucleari
  - oscillazioni neutriniche
- Neutrini da supernove
  - “alcune verifiche” dei modelli di collasso gravitazionale
- Energie tipiche 1- 50 MeV
- Masse dei rivelatori e range di osservazione

Sorgenti di particelle di alta energia

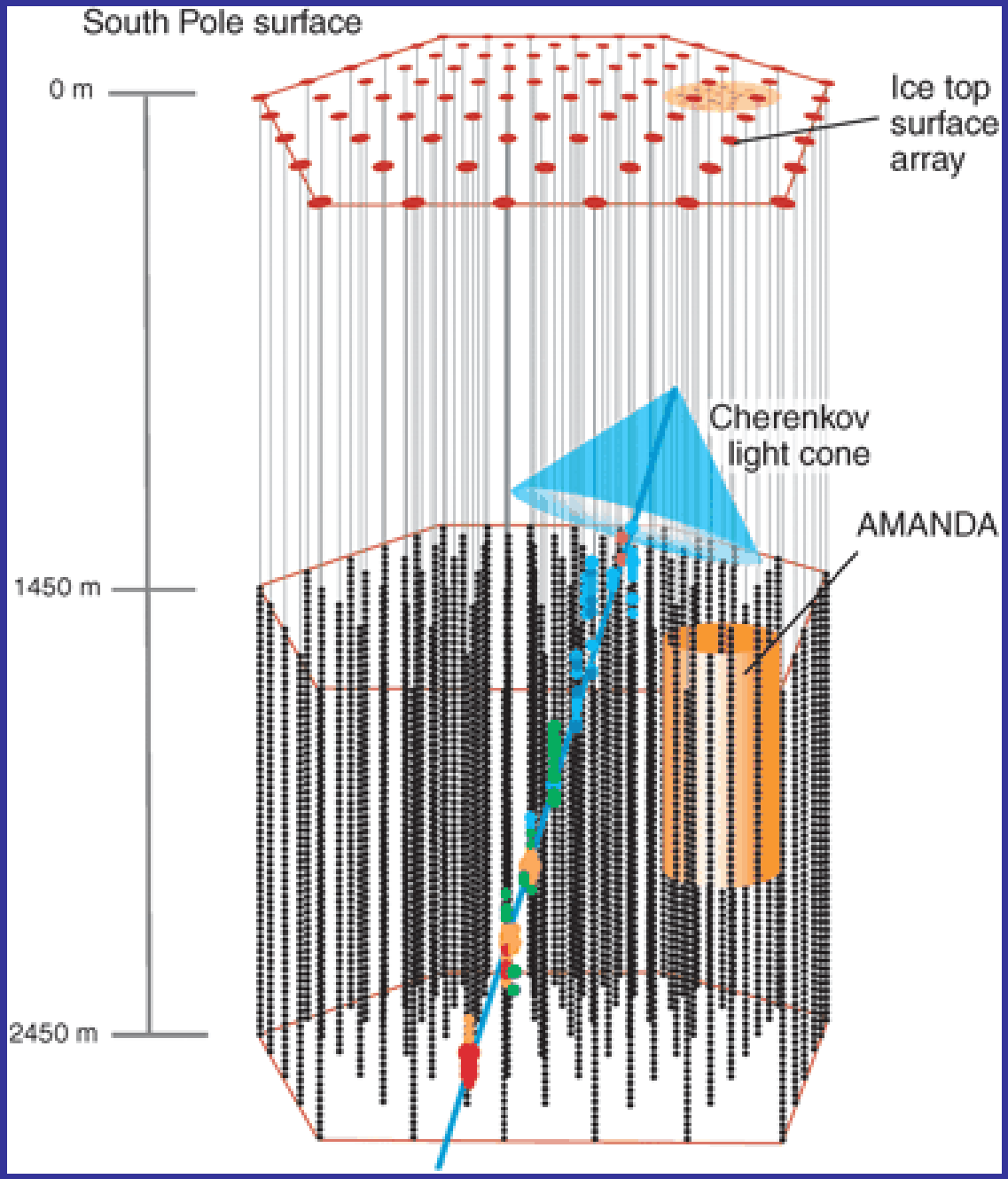


$E_{max} \sim BL$

Astrofisica neutrinica oltre il TeV



Ice Cube


South Pole surface
0 m
1450 m
2450 m
Ice top surface array
Cherenkov light cone
AMANDA

Alexandre Dumas
I tre/quattro moschettieri
Vent’anni dopo