



Finanziato dall'Unione europea
NextGenerationEU



Ministero dell'Università e della Ricerca



Italiadomani
PIANO NAZIONALE DI RIPRESA E RESILIENZA



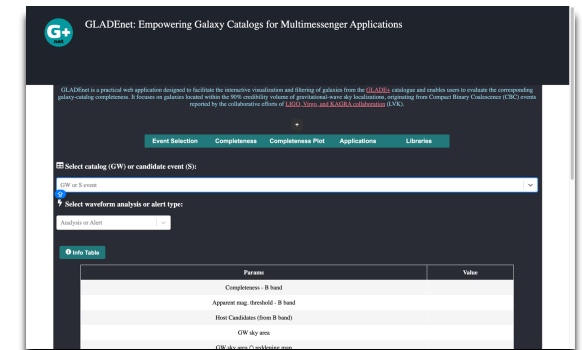
GW170817: A VO interoperability

ESO + LIGO/Virgo

ESO + HST (ESASky)

ESO La Silla Paranal + ALMA

VO inside!



3D Glade Galaxies (INFN)
Providing new interop.

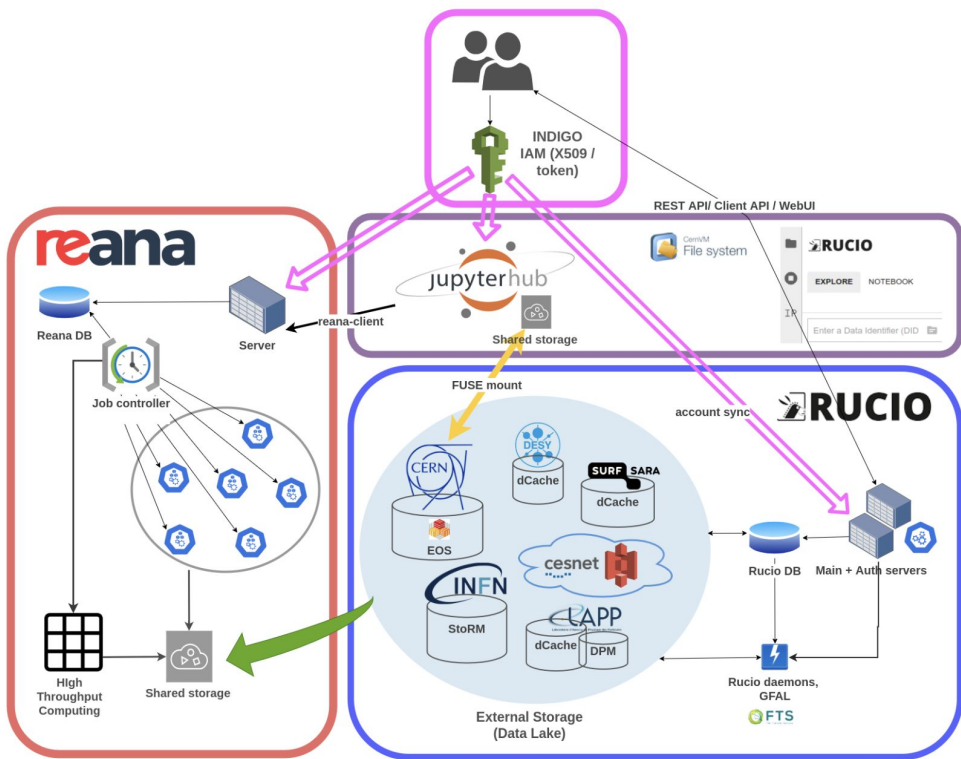
From ESCAPE Virtual Observatory Connecting ESFRI data to the EOSC using the VO =

https://www.youtube.com/watch?v=_MQVCT1WMq4

The CERN-VRE (Virtual Research Environment)

[\[Link to demo\]](#)

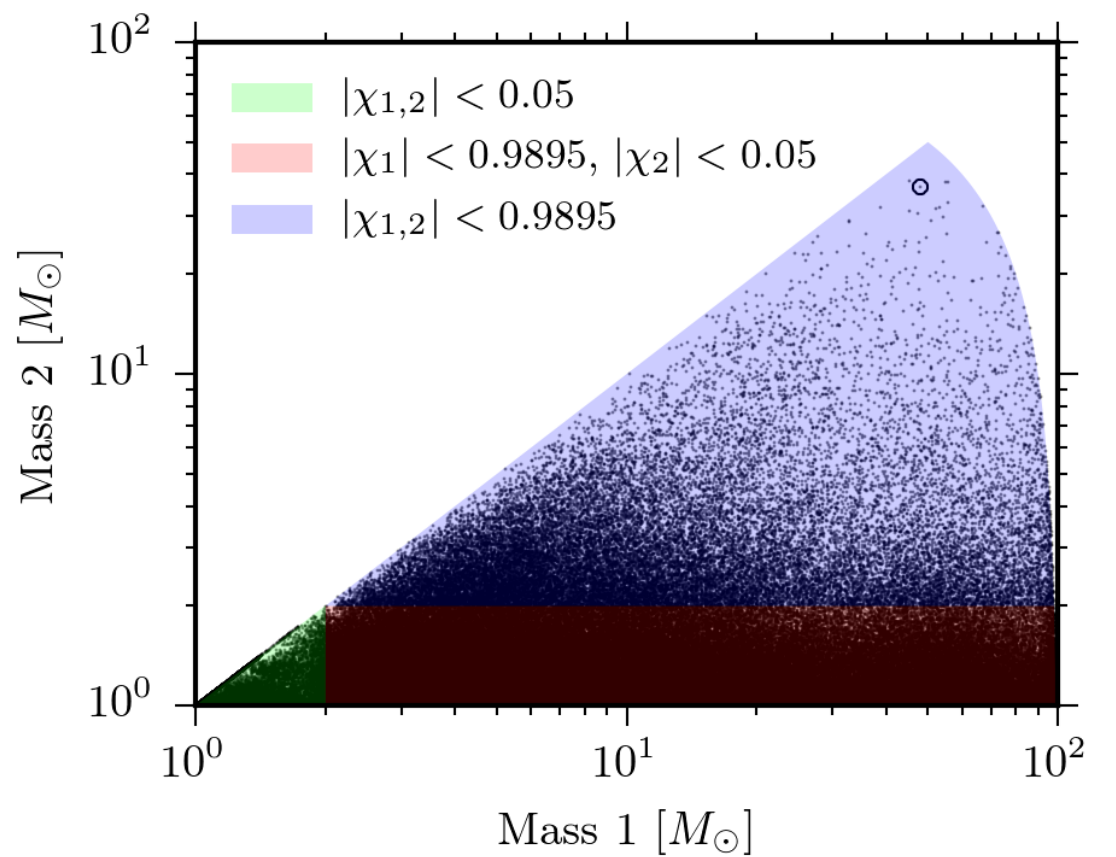
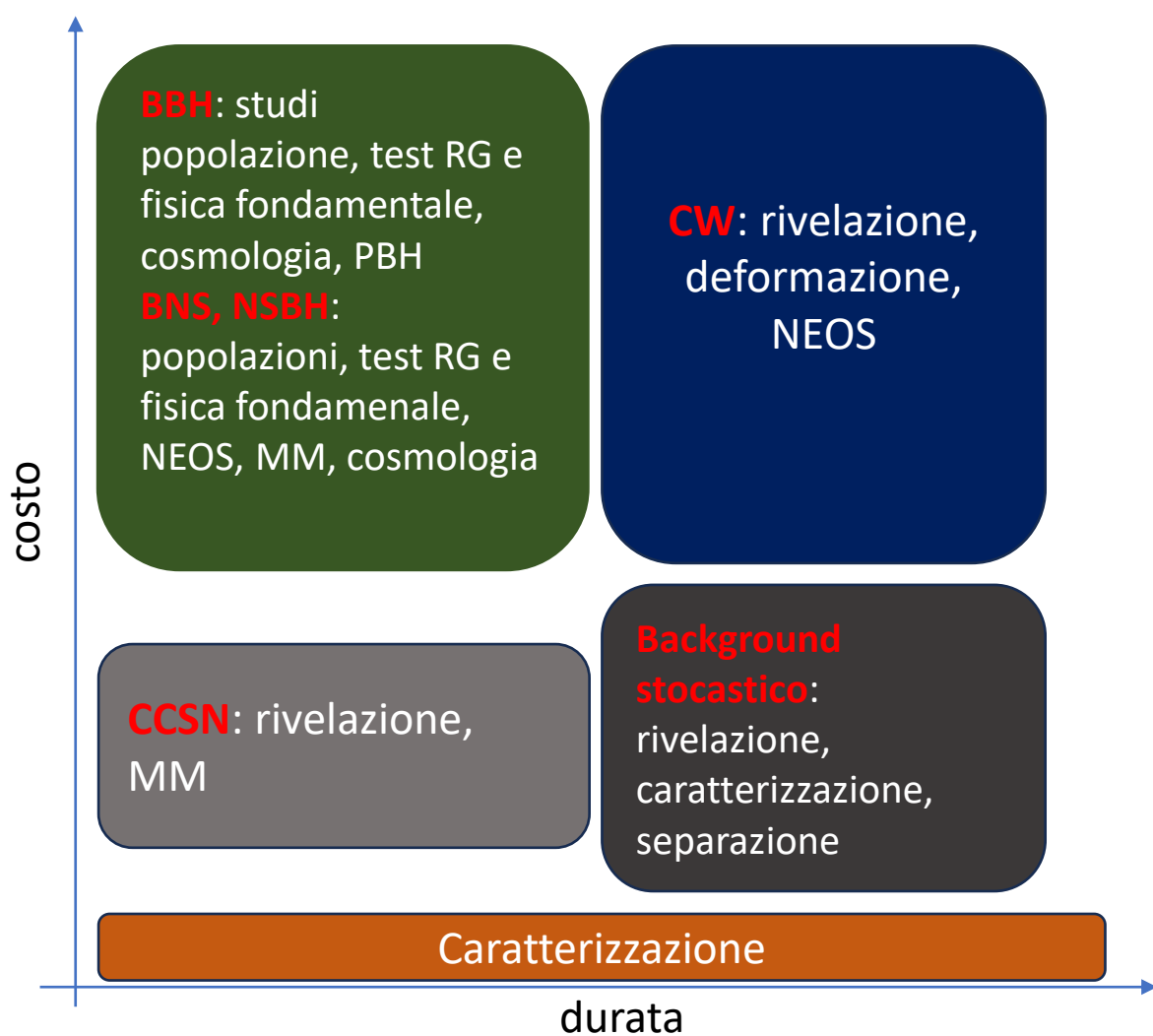
<https://vre-hub.github.io/>



An **analysis facility**, which allows the following services to be connected:

- ESCAPE **Data Lake infrastructure** - A federated distributed storage solution (based on **RUCIO**).
- Computing cluster powered by **REANA** (analysis platform with special focus on reanalysis).
- Accessible via a **Jupyter** frontend that can
 - load user **software environments**,
 - use a **Notebook** service
 - access to **CVMFS** repositories.
- By a single login to a federated AAI - **ESCAPE INDIGO IAM**.

escape-cern-ops@cern.ch



$$\tau \simeq 2.18s \left(\frac{1.21M_{\odot}}{\mathcal{M}} \right)^{5/3} \left(\frac{100\text{Hz}}{f} \right)^{8/3}$$

- Effetto combinato dell'aumento della banda: densità e lunghezza
- Precisione PE? Bias?
- Sovrapposizione eventi
- Parallelismo
- Dipendenza dal segnale

	LVK	ET
Rate eventi	10^2 y^{-1}	10^5 y^{-1}
Masse	$1M_{\odot} < M < 10^2 M_{\odot}$	$10^{-1}M_{\odot} < M < 10^3 M_{\odot}$
Durata	$1s < T < 10^2s$	$1s < T < 10^5s$