

Pilot projects

Main Research Area	Objects/sources	Messengers	ESF/RI involved	ESCAPE services EOSC-Future integrations	Data Analysis tools (AI,ML)	Pilot project(s)	Computing resources required	Partner PM involved
Compact objects	<i>Pulsars, FRBs, Off-nuclear AGN</i>	<i>radio, optical, X-ray, ...</i>	<i>LOFAR...</i>	<i>Multiwavelength platform/Software catalogue, VO tools</i>	<i>Data science, Machine Learning</i>	<i>1) Radio astronomy: FRBs, pulsars, plerions, off-nuclear AGN</i>	<i>Compute cluster, Jupyter hub, Rucio Data lake</i>	<i>42 PM Astron/UvA</i>
High energy Astrophysics	<i>GRBs, jets, AGN, BNS, CCSN</i>	<i>neutrinos, gamma-ray, radio, X-ray, GW,...</i>	<i>CTA, Virgo, KM3NET, SKA, LSST</i>	<i>Multimessenger platform/Software catalogue, ... Virtual Observatory tools</i>	<i>Model comparison, Machine Learning</i>	<i>1) GRB/neutrino/GW analysis, 2) Blazar MWL/neutrino</i>	<i>GPU cluster Jupyter hub</i>	<i>12 PM UvA, 6 PM FAU, 4 PM CNRS, 24 PM SNS</i>
Fundamental physics	<i>Dark matter, GR, Primordial Universe</i>	<i>GW,</i>	<i>Virgo, Einstein Telescope</i>	<i>Template banks, generation software,...</i>	<i>Machine learning approach</i>	<i>1) DM template bank and ML analysis pipeline</i>	<i>GPU cluster Jupyter hub</i>	<i>10 PM INFN, 12 PM UvA, 12 PM SNS, 2 PM FAU ...</i>



On going projects

- High Energy astrophysics: *Multi-messenger platform (SNS, A. Iess)*
- Compact objects: *a multi-wavelength search cloud platform (ASTRON, Dany)*
- Detecting DM with Einstein Telescope (UvA, A. Parisi)
- IRF from KM3NeT for DM and EU purposes (FAU, Misha)
- Study of angular correlation signatures induced on GW stochastic background by lensing effects(INFN, G.Cella giancarlo.cella@pi.infn.it)
- GRB and AGN (UvA) (S. Merkoff, S.B.Markoff@uva.nl)



AOB and Next meetings

- Need help in coordination: any volunteer?
 - F2F @CERN 21-22 July
 - General ESCAPE meeting (25-26 October)
- general presentation about TSP

