

LARGE GRANTS

#	PI	Titolo	Importo	Punteggio
1	Pentericci L.	Extragalactic Surveys with JWST	200000	58,4
2	Cresci G.	The metal circle: a new sharp view of the baryon cycle up to Cosmic Dawn with the latest generation IFU facilities	200000	57,4
3	Prandoni I.	MeerKAT and LOFAR Team Up: A Unique Radio Window on Galaxy/AGN co-Evolution	178000	56,0
4	D'Avanzo P.	GRAWITA: a key INAF team to tackle the multi messenger discoveries of run O4 by LIGO/VIRGO/KAGRA	200000	55,0
5	Palomba E.	PRESTIGE (Pristine Returned Sample Testing InvestiGation and Examination)	198000	54,5
6	Nisini B.	YODA (YSOs Outflows Disks and Accretion): towards a global framework for the evolution of planet forming systems	200000	53,7
7	Mereghetti S.	MAGNETARS	126000	53,5
8	Pastorello A.	Shedding light on the nature of gap transients: from the observations to the models	167000	53,3
9	Zappacosta L.	Toward an holistic view of the Titans: multi-band observations of $z>6$ QSOs powered by greedy supermassive black-holes	200000	52,8
10	Possenti A.	Pulsar/black-hole systems and other jewels in the casket of globular cluster stellar populations	200000	52,8
11	Iovino, A.	WEAVE StePS	200000	52,6
12	Hunt L.	INAF Exploration of Diffuse Galaxies with Euclid: INAF-EDGE	200000	51,7
13	Severgnini, P.	Dual and binary supermassive black holes in the multi-messenger era: from galaxy mergers to gravitational waves	197000	51,4
14	Muleri, F.	The Compton polarimeter on board the Soft-X and gamma-ray Wide-field Polarimeter Explorer	200000	50,8
15	Beltran, M.	The role of MAGnetic fields in MAssive star formation (MAGMA)	184000	50,8
16*	Papitto A.	<i>Uncovering the optical beat of the fastest magnetised neutron stars (FANS)</i>	150000	50,7

*Proposta finanziata parzialmente a completamento delle risorse allocate

TECHNO GRANTS

#	PI	Titolo	Importo	Punteggio
1	Saracco P.	SHARP - A near-IR multi-mode spectrograph for MAORY@ELT	98000	54,6
2	Sacco G.	Machine Learning for Spectroscopy	89144	53,5
3	Campana R.	Beyond HERMES: toward a multipurpose interplanetary X and gamma-ray spectrometer instrument	100000	53,0
4	Speziali R.	SAMM Versione 2	99180	52,2
5	Basso S.	Nested Optics With Chemical Bonding	100000	52,1
6*	Tomasella L.	RoboCop: a low-cost robotisation project for Copernico 1.82m telescope	13676	49,9

**Proposta finanziata parzialmente a completamento delle risorse allocate*

LABORATORI SPAZIALI

#	PI	Titolo	Importo	Punteggio
1	Feroci M. .	Potenziamento Laboratori Spaziali presso lo IAPS	93086	52,0
2	De Angelis S.	Developing a Chamber for Analogues of Planetary SURfaces Laboratory: the CAPSULA project	100000	51,6
3	Palumbo M.	Upgrade of the Laboratorio di Astrofisica Sperimentale (LAsp) at INAF-OACT	83000	51,0
4	Ghigo M.	Ion Beam Experiment (IBEX)	95000	50,5
5	Ciavarella A.	SurFace Enhanced infraRed spectroscopy for Astrochemistry (SFERA)	93000	49,7

Nota: la quota rimanente di finanziamento non è sufficiente a finanziare in modo significativo la proposta successiva.

MINI-GRANTS

RSN - 1					
#	PI	Titolo	Importo	Punteggio	Giovani
1	Del Vecchio	Harnessing the power of VLBA towards a census of AGN and star formation at high redshift	20000	62,00	Si
2	Ignesti	Exploring the physics of ram pressure stripping in galaxy clusters with Chandra and LOFAR.	10000	60,50	Si
3	Belfiore	Towards precision chemical abundances: from the local Universe to Cosmic Noon	20000	60,33	Si
4	Bacchini	Beyond flatland: disseminating the crucial role of gas disc thickness in the study of star-forming galaxies	10000	59,50	Si
5	Marchesi	Piercing through the clouds: a multiwavelength study of obscured accretion in nearby supermassive black holes	18000	57,67	Si
6	Vietri	Searching for UV ultra-fast outflow in AGN by exploiting wide-area public spectroscopic surveys.	8000	56,67	Si
7	Maitra	Innovative Avenues to Compute the Matter Power Spectrum and Constrain Cosmology using Quasar Absorption Spectra	10000	56,67	Si
8	Luminari	UV and X-ray spectroscopy of disc winds with the novel Wind in the Ionised Nuclear Environment model (WINE)	20000	56,33	Si
9	Biviano, A.	The dynamics of clusters of galaxies from the projected phase-space distribution of cluster galaxies	11500	56,00	No
10	Bonici	Boosting Cosmological Data Analysis with Deep Learning	18000	55,67	Si
11	Bischetti	Mini-feedback	17300	55,67	Si
12	Longhetti	4MOST-StePS	14000	53,00	No
13	Radovich	Searching for clusters in the KiloDegree Survey	10000	51,50	No
14	Mannucci	Support to the coordination of the MOONS science team	17000	51,33	No
15	Gallazzi	The stellar population scaling relations from LEGA-C and their evolution with redshift	12000	50,50	No
16	Calabro, A.	High-redshift galaxy evolution with VANDELS	7000	50,33	No
17	Santini	The evolution of passive galaxies through cosmic time	17500	50,33	No

18	Murante	CONNECTIONS (COllaboratioN oN codE development for future Cosmological simulaTIONS)	18000	50,00	No
19	Castellano	Reionization and fundamental cosmology with high-redshift galaxies	18500	50,00	No
20	Bisogni	A novel machine learning approach to delve into the AGN central engine	15000	49,33	No
21	Bongiorno	Learning Machine Learning techniques to dig up high-z AGN in the Rubin-LSST Survey	18200	49,00	No
22	Venturi	ShaSEE - Shapley Supercluster Exploration and Exploitation	18000	49,00	No
23	Meneghetti	The Big-Data era of cluster lensing	18000	49,00	No
24	Lovisari	Scaling Properties and the Effects of Feedback for a Complete Sample of Galaxy Groups	13000	48,67	No
25	De Grandi	WEAVE@INT Clusters Survey: observation of Abell 2626, the first step towards a new unpredictable vision of the role of environment in galaxy evolution	18000	48,50	No
26	Baldi	FRO radio galaxies	14000	48,33	No
27	Casasola	Face-to-Face with the Local Universe: ISM's Empowerment (LOCAL)	18000	48,33	No
28	Portaluri	SYNTRA +++	11000	47,67	No
29	Tortora	Mass profiles of gravitational Lenses: MOdelling with Neural networks and scientific exploitation	18000	47,67	No
30	Vulcani	Tracing filaments through the cosmic time	18000	47,50	No

RSN - 2					
#	PI	Titolo	Importo	Punteggio	Giovani
1	Rigliaco, E.	Dusty Outflows: linking theory to observations	20000	56,00	No
2	Marini, E.	Disclosing the stellar dust production in the Milky Way	20000	56,00	Si
3	Lucatello, S.	Stellar Clusters in 4MOST	16000	55,00	No
4	Pascale, R.	Towards a new era of hydrodynamic N-body simulations: a novel software to generate galactic initial conditions	10660	54,50	Si
5	Gangi, M.	SPOTS - SpectroPolarimetric Observations of T Tauri Stars: a new approach to unveil disks and jets at sub-au scale	20000	53,00	Si
6	Bordiu Fernandez, C.	A needle in a haystack: a semi-supervised search for evolved massive stars with multiwavelength survey data and VO tools	15000	52,00	Si

7	Podio, L.	Chemical Origins: linking the chemistry of protoplanetary disks with the fossil composition of the Solar System	15000	52,00	No
8	Elia, D.	MSISM (The Multi-Fractal Structure of the InterStellar Medium)	15000	50,50	No
9	Traficante, A.	PANTA REI: the mass and energy flow from parsec to sub-parsec scales in star-forming regions	20000	49,50	No
10	Carini, R.	Can AGB stellar winds unveil the origin of the unidentified infrared emission bands ?	15000	49,50	No
11	Giacobbe, P.	Retrieval of exoplanetary atmospheres exploiting high resolution spectroscopic data	20000	49,00	No
12	Giannini, T.	Spectroscopic follow-up of eruptive young variables alerted by Gaia	9000	48,50	No
13	Damasso, M.	A pilot study to explore the potential of SRT in detecting nearby radio-emitting stars with confirmed or candidate exoplanets, supported by a radial velocity follow-up	16000	48,50	No
14	Biazzo, K.	TRAME@JWST: TRacing the Accretion-Metallicity rELationship with NIRSpec@JWST	20000	48,00	No
15	Bragaglia, A.	High resolution spectroscopy of open clusters	15000	48,00	No
16	Di Criscienzo, M.	MOVIE@Rubin-LSST: enabling early science	20000	47,00	No
17	Fiori, M.	Development of efficient algorithms for the simulations and analysis of Stellar Intensity Interferometry data	10000	46,50	Si
18	Franchini, M.	Libraries of High-Resolution Synthetic Spectra for FGK stars	19000	46,50	No
19	Ingallinera, A.	Spectral study of supernova remnants with MeerKAT	16700	45,50	No
20	Mulas, G.	LAIbrary: Library of simulated AIB spectra	10000	45,50	No
21	Cabona, L.	An optimised scheduler for Radial Velocity measurements at Telescopio Nazionale Galileo	20000	45,00	Si
22	Colombo, S.	Impact of Coronal Mass Ejection on Hot Jupiter Atmosphere	19000	45,00	Si
23	Sanna, A.	Feasibility project for the ngVLA: a Science Case with Masers	20000	44,50	No
24	Musella, I.	Are the Ultra Long Period Cepheids cosmological standard candles?	20000	43,50	No

25	Maris, M.	Correlating Habitability, Biosignatures and Refraction in Habitable Planets Atmosphere Models	20000	42,50	No
26	Locci, D.	Effects of high energy stellar radiation on exoplanetary atmospheres	19100	42,50	No
27	Magrini, L.	CHECS (CHEmical ClockS): Seeking a theoretical foundation for the use of chemical clocks	20000	41,50	No
28	Muraveva	Machine learning algorithms applied to the Gaia data	15000	41,00	No
29	Carrera - Jimenez	Open Clusters Chemical Abundances: OCCASO	14000	41,00	No

RSN - 3					
#	PI	Titolo	Importo	Punteggio	Giovani
1	Fornaro	Support to Mars 2020 Participating Scientist Activities	20000	67,00	Si
2	Cambianica	ANTHELIA - ANalysis of illumination and THERmal Environment of Lunar plts and lavA tubes	18000	66,00	Si
3	Munaretto	Exploring Martian diurnal surface activity through coordinated TGO/CaSSIS and MRO/HiRISE observations	20000	66,00	Si
4	Lucchetti	RIFTS: Role of Icy FracTured Surfaces. Unveiling the hidden subsurface through fractal, structural and compositional analyses	18000	63,00	Si
5	Franzese	DuCK - Dust Charging Knowhow	19000	63,00	Si
6	Simonetti	Radiative models for the paleoatmospheres of Mars, Earth and Venus	19000	63,00	Si
7	Ieva	Transitional near-Earth Objects: asteroids or comets?	14400	60,00	Si
8	Alberti	The predictable chaos of Space Weather events	18000	59,00	Si
9	Frassati	Study the formation and evolution of CME-driven shocks with space-based and ground-based instrumentations	7000	58,00	Si
10	Benella	The solar wind: a paradigm for complex system dynamics	18000	57,00	Si
11	Accolla	Formation of Silicate Dust Grains under Laboratory Conditions Mimicking the Atmosphere of Evolved Stars	10740	57,00	No
12	Galluzzi	Investigating Mercury's Tectonics with Geophysical Modelling and Earth Structural Analogues	16000	55,00	No
13	Fulvio	Laboratory experiments on complex organic molecules of interest for Astrobiology	18000	54,00	No

14	Marassi	Study of the correlation between the solar activity and the geomagnetically induced currents in gas pipelines systems	18000	53,00	No
15	Carli	IRON: IRon meteorite Oxygen isotopes link with a New primitive achondrite group	4800	51,00	No
16	Cecchi Pestellini	Electron impact processing of ices in moons orbiting giant planets. Implications for organic chemistry	15300	51,00	No
17	Andretta	Collisional-radiative models for the next generation solar spectroscopy	8500	50,00	No
18	Frigeri	Development of a GIS Data Model for Hyperspectral Mapping Spectrometers	8100	50,00	No
19	Jimenez Escobar	Complex Organic Molecules in Evolving proTo-planetary Systems (COMETS)	13000	50,00	No
20	Wolkenberg	Analysis of special observations by PFS-MEx	14400	47,00	No

RSN - 4					
#	PI	Titolo	Importo	Punteggio	Giovani
1	Spingola	Collaborative research on VLBI as an ultimate test to Λ CDM model	14100	60,00	Si
2	Bucciantini	Numerical Studies of Pulsar Wind Nebulae in the Light of IXPE	19800	56,75	No
3	Pian	The asymmetry at the heart of long GRB explosions	18000	56,25	No
4	Nava	Shock acceleration in Gamma Ray Bursts	15600	56,00	No
5	Galanti	High-energy astrophysics and axion-like particles	20000	55,50	No
6	Loru	Single-Dish Radio Imaging of supernova remnants: investigating high-energy particle properties	16200	54,50	Si
7	Righi	One time-dependent model to rule them all.	18000	53,50	Si
8	Nardini	AGN accretion disks under the X-ray scanner	18000	53,00	No
9	Amati	GRB cosmology and physics with the Amati relation.	8000	52,50	No
10	Motta	EJECTA: Extreme JETs from Compact Accretors	18000	49,00	No
11	Miceli	X-raying shock modification in supernova remnants	16500	49,00	No
12	Dadina	UAGNER	18000	48,00	No
13	Rodi	Cen A: Understanding the Nature of the Hard X-ray/Soft Gamma-ray Emission with INTEGRAL	14000	47,75	No
14	Bernardini	SVOM and INAF connection for GRB science (SI-GRB)	16000	47,50	No

15	Migliori	The high-energy view of jets and transients	13740	47,00	No
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RSN - 5					
#	PI	Titolo	Importo	Punteggio	Giovani
1	Incardona	Failure type detection and predictive maintenance for the next generation of imaging atmospheric Cherenkov telescopes	20000	66,50	Si
2	Parmiggiani	Deep Learning techniques to detect and simulate gamma-ray bursts and solar flares from time-series.	19000	65,00	Si
3	Marchesini	Siswich Instrument Spectral Calibration Optimization - SISCO	20000	64,00	Si
4	Azzaroli	Sub-apertures calibration of deformable mirrors	19700	63,00	Si
5	Scalera	Study of MBSE methodology to identify and create useful templates and proper tools for the management of projects for astronomical instrumentation	20000	62,75	Si
6	Iovenitti	POMATA - Protective Oils for Mirrors Aging on Telescopes Alfresco	20000	60,50	Si
7	Caro	Development of optimal tools to perform deblending and photometry in astronomical images by combining simulations and deep learning models	15000	59,25	Si
8	Ursi	ICT-Experiment to Study Thunderstorm High-Energy Radiation (ESTHER)	20000	59,25	Si
9	Radhakrishnan	AO telemetry as a remedy for the metapupil partial illumination issue	19000	58,75	Si
10	Cesare	Investigation of Scalability, Numerical Stability, and Green Computing of LSQR-based applications involving Big Data in perspective of Exascale systems: the ESA Gaia mission case study	20000	58,25	Si
11	Cabras	Monitoraggio e mitigazione delle RFI utilizzando l'IA	20000	55,50	Si
12	Dimarco	New generation of 3D detectors for X-ray polarimetry: simulation of performances	20000	54,00	No
13	Iuzzolino	Design optimization of aluminum-made secondary mirror in space telescopes	19500	53,25	Si
14	Raciti	Exploring Multi-Node Parallel and Accelerated FFTs Implementations for Imaging Pipelines	20000	52,00	Si

		Integration and calibration of the polarimetric unit of the Interferometric Bldimensional Spectrometer 2.0 (IBIS 2.0)			
15	Viavattene	Integration and calibration of the polarimetric unit of the Interferometric Bldimensional Spectrometer 2.0 (IBIS 2.0)	18400	50,50	Si
16	Sironi	DEFLECTIONS - Deflectometry Flexible Solutions	20000	50,50	No
17	Lagrassa	Planetary Surfaces Analysis: The Potential of Deep Learning for Space Science Research.	20000	50,25	Si
18	Eredia	PLC-driven electronic design for the next generation of astronomical ground-based instrumentation and its integration in a concurrent engineering environment	19795	49,75	Si
19	Oggioni	Integration of optical data and FE model to drive wavefront correctors in AO systems	20000	49,75	Si
20	Riva, A.	Small Compact Optical Telescope Test in Laboratory for Astrometry Nano Glass	20000	49,25	No
21	Dilillo	Development of novel algorithms for detecting high-energy transient events in astronomical time series	15000	49,25	Si
22	Battaini	A narrow band filters at LBC for multiple stellar populations detection in globular clusters	20000	48,75	Si
23	Cianniello	Un approccio integrato alla progettazione meccanica per strumentazione astronomica da terra: dal concetto alla prototipazione rapida 3D, attraverso metodi di trade-off ed analisi FE	19656	47,50	Si
24	Redaelli	Un approccio integrato alla progettazione meccanica per strumentazione astronomica da terra: dal concetto alla prototipazione rapida 3D, attraverso metodi di trade-off ed analisi FE	20000	47,00	Si
25	Gheller	High Performance data I/O VLBI (HPV)	10000	46,50	No

GTO-GRANTS

Finanziamento previsto 1 M€

RSN - 1 LARGE				
#	PI	Titolo	Importo	Punteggio
1	D'Odorico	XQR-30	100000	57,00
2	Iodice	Looking into the faintest With muSe (LEWIS): on the nature of ultra-diffuse galaxies in the Hydra-I cluster	100000	54,66

RSN - 2 LARGE				
#	PI	Titolo	Importo	Punteggio
1	Guarcello, M.,	Young starburst clusters: stars, planets, compact objects and stellar exotica in extreme star forming environments	98900	58,00
2	Caratti o Garatti, A.	NAOMY: NIR-dark Accretion Outbursts in Massive Young stellar objects	100000	58,00

RSN - 4 LARGE				
#	PI	Titolo	Importo	Punteggio
1	Israel	Too B or not too B: the quest for the PULX accretion mechanism	56000	54,50
2*	Ponti	<i>The base of the Galactic outflow: X-raying the inner disc of the Milky Way to understand how the Galactic outflow is launched</i>	44000	53,50

*Proposta finanziata parzialmente a completamento delle risorse allocate

RSN - 1 NORMAL				
#	PI	Titolo	Importo	Punteggio
1	Vanzella	The revolution is around the corner: JWST will probe globular cluster precursors and Population III stellar clusters at cosmic dawn	50000	59,00
2	De Carli	Ricerca e caratterizzazione dei primi quasar e del loro ambiente	48600	55,68
3	Strazzullo	Environmental quenching efficiency across the virial volume of the most massive, most distant clusters	50000	54,33

RSN - 2 NORMAL				
#	PI	Titolo	Importo	Punteggio
1	Marino, A.	Understanding the formation of globular clusters with their multiple stellar generations	50000	57,50
2	Molaro, P.	THE ASTRONOMICAL ORIGIN(S) OF LITHIUM	50000	57,00

3	Fedele, D.	ERIS & SHARK GTO data exploitation	48000	56,5
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RSN - 3 NORMAL

#	PI	Titolo	Importo	Punteggio
1	Orosei	Evidence on the origin and fate of Martian subglacial water in MARSIS data	44000	57,0

RSN - 4 NORMAL

#	PI	Titolo	Importo	Punteggio
1	Moretti, A.	QSO jets in the early Universe	24000	52,50
2	Orienti, M.	VLBA observations of low-power jets in compact symmetric objects	45000	52,00
3	Giroletti, M.	Resolving and tracking with VLBI the shocked ejecta of the 2021 outburst of RS Oph	45000	52,00
4	Del Santo, M.	ACE-BANANA: ACcretion-Ejection physics in Black hole And Neutron star X-ray binARies	36000	49,75

THEORY GRANTS

RSN - 1				
#	PI	Titolo	Importo	Punteggio
1	De Lucia	The critical role of DUST in the cosmic barYon cycle (DUSTY)	50000	56,32
2	Giocoli	Illuminating Dark Matter using Weak Lensing by Cluster Satellites	50000	55,32
3	Merlin	Forward modeling of theoretical models for upcoming surveys	40000	54,67

RSN - 2				
#	PI	Titolo	Importo	Punteggio
1	Limongi	Evolution, nucleosynthesis and final fate of stars in the transition between AGB and Massive Stars	50000	59,50
2	Matteucci	Galactic archaeology with radioactive and stable nuclei	20000	58,50
3	Girardi	Population synthesis with rotating stars: a necessary upgrade	50000	58,50
4	Ventura	Understanding mass loss and dust production from evolved stars	30000	56,50
5	Romano, D.	An in-depth theoretical study of CNO element evolution in galaxies	50000	55,50

RSN - 3				
#	PI	Titolo	Importo	Punteggio
1	Bemporad	Simulations of Sun-to-Earth Propagation of Solar Eruptions (SSEPSE)	48000	55,00

RSN - 4				
#	PI	Titolo	Importo	Punteggio
1	Morlino	Star Clusters As Cosmic Ray Factories	49600	57,00
2	Tavecchio	Multi-scale simulations of relativistic jets	45500	57,00