



UNIVERSITÀ DEGLI STUDI DI MILANO
DIPARTIMENTO DI FISICA

COMPETITION FOR ADMISSION TO DOCTORATE SCHOOL IN PHYSICS, ASTROPHYSICS AND APPLIED PHYSICS
XXXVTH CYCLE - A.Y. 2019/2020

Evaluation criteria (curriculum): up to 20 points

a. Academic career: up to 14 points

The Committee takes into account the grade point average throughout the academic career, including the final grade and honors and the situation into candidates got the graduation. Candidates with non-Italian grades are evaluated keeping into the peculiarities of their academic systems.

b. Publications: up to 2 points

c. Research and other titles and experiences: up to 4 points

Evaluation criteria (Research Project): up to 10 points

The committee assesses projects according to the following criteria: clarity and overall logical coherence, scientific value and innovativeness of the proposal also in reference to the state of the art, and relevance of the candidate's role within the project.

EVALUATION OF DOCUMENTS SUBMITTED

Candidate	Curriculum	Project	Total	Result
ACANFORA Francesca	16,60	4,20	-	Not Admitted for insufficient score
BALLABENE Eric	18,00	7,00	25,00	Admitted
BALLI Filippo	17,50	6,60	24,10	Admitted
BARANI Mara	15,20	7,30	22,50	Admitted
BERTOLINI Giacomo	9,80	5,80	-	Not Admitted for insufficient score
BIGLIANI Claudio	11,90	4,90	-	Not Admitted for insufficient score
BINDI Andrej	11,80	6,30	18,10	Admitted
BUZZATTO SIQUEIRA Patricia	9,00	6,80	-	Not Admitted for insufficient score
CAIMI Federico	13,90	7,00	20,90	Admitted
CAMPOLONGO Andrea	12,00	6,80	18,80	Admitted
CANDELORO Alessandro	17,00	6,50	23,50	Admitted
CANDIDO Alessandro	16,20	7,80	24,00	Admitted
CARELLA Elisabetta	13,20	7,30	20,50	Admitted
CASTELLINI Stefano	12,70	7,50	20,20	Admitted
CLAVICO Sara	15,20	6,10	21,30	Admitted
COSTANTINI Giovanni	11,00	6,50	17,50	Admitted
DE VITA Alessandro	13,40	6,90	20,30	Admitted
DI MAIO Emanuele	16,00	3,20	-	Not Admitted for insufficient score
ESTRADA MARTINEZ Gilberto Nicolas	7,40	7,00	-	Not Admitted for insufficient score
FAMILIARI Francesca	8,80	5,40	-	Not Admitted for insufficient score
FANFANI Valentina	11,50	6,30	17,80	Admitted
FRANCIOSINI Gaia	16,00	7,50	23,50	Admitted
FUCILLA Michael	17,50	5,20	22,70	Admitted
GALELLI Claudio	11,40	7,80	19,20	Admitted
GALLICE Niccolo'	16,50	6,40	22,90	Admitted
GARAU Michela	11,40	7,50	18,90	Admitted
GAROFFOLO Alice	16,00	7,30	23,30	Admitted
GARUFFO Andrea	4,00	4,50	-	Not Admitted for insufficient score
GAVARDI Alessandro	16,00	7,00	23,00	Admitted

Candidate	Curriculum	Project	Total	Result
GIARDIELLO Serena	15,50	6,80	22,30	Admitted
LANZANOVA Lorenzo	9,80	5,90	-	Not Admitted for insufficient score
LI Fei	-	-	-	Not Admitted for missing documentation
LI Xiaowei	-	-	-	Not Admitted for missing documentation
MANITTA Andrea	13,60	6,30	19,90	Admitted
MARINI Ilaria	13,30	6,60	19,90	Admitted
MARONESE Marco	15,00	6,40	21,40	Admitted
MARTIRE Felice Antonio	17,00	6,40	23,40	Admitted
MELLINATO Michele	12,30	6,00	18,30	Admitted
MOHARANA Ayush	9,00	-	-	Not Admitted for insufficient score
NICOLOSI Francesco	10,40	6,70	17,10	Admitted
NOBILI Germano	6,50	6,50	-	Not Admitted for insufficient score
OPROMOLLA Michele	14,10	6,00	20,10	Admitted
PACELLI Rosalba	13,80	5,80	19,60	Admitted
PATTI Alberto	13,90	3,80	-	Not Admitted for insufficient score
PIAZZA Federica	10,90	7,30	18,20	Admitted
POLETTINI Marta	13,20	6,40	19,60	Admitted
RAINALDI Tommaso	11,00	4,80	-	Not Admitted for insufficient score
RINAUDO Anna	12,80	7,00	19,80	Admitted
ROCUTTO Lorenzo	16,00	5,50	21,50	Admitted
ROMANO Riccardo	16,20	7,30	23,50	Admitted
ROSSI Marco	16,00	7,10	23,10	Admitted
SANTUCCI Alessandro	11,50	6,30	17,80	Admitted
SILVERAVALLE Samuele	15,70	6,60	22,30	Admitted
SILVETTI Federico	16,00	7,30	23,30	Admitted
SPINELLI Beniamino Vittorio Maria	9,00	4,70	-	Not Admitted for insufficient score
SPINELLI Riccardo	15,00	6,60	21,60	Admitted
SPINICCI Luca	15,70	5,50	21,20	Admitted
STEGEMAN Roy	13,00	6,70	19,70	Admitted
TAHIR Noraiz	9,00	6,70	-	Not Admitted for insufficient score
TEODORI Luca	13,80	4,10	-	Not Admitted for insufficient score
TORNIAMENTI Stefano	18,50	8,10	26,60	Admitted
TREVISAN Simone	16,50	6,10	22,60	Admitted
TROJANI Nicolas	9,50	6,30	-	Not Admitted for insufficient score
VACCARO Francesco	10,00	6,20	16,20	Admitted
VENTURELLI Davide	17,50	6,70	24,20	Admitted
VERONESI Francesca Maria Sole	15,00	6,30	21,30	Admitted
VIGANO' Adriano	19,00	6,90	25,90	Admitted

to be admitted to interview, candidates must obtain a minimum of 10 points in the curriculum and a minimum of 5 points in the research project.

CALENDAR OF ORAL EXAMINATIONS

Candidates having (serious) problems with the schedule below are requested to communicate as soon as possible with the PhD secretary (phd@fisica.unimi.it) and the President of the Committee (gianluca.colo@unimi.it), suggesting a new date and/or time.

Monday 8th July 2019 - h. 10:00 am - Sala Polvani

N°	candidates	project title
1	De Vita Alessandro	Correlation and Dimensionality effects on magnetism and magnetization dynamics.
2	Fanfani Valentina	Nuove stime del parametro di Hubble nel range di redshift $0.6 < z < 1$ tramite il metodo dei "cronometri cosmici".
3	Francesini Gaia	HEN-FOOT: an upgrade for the FOOT experiment: High Energy and Neutrons detection capability.
4	Fucilla Michael	BFKL dynamics in perturbative QCD.
5	Galelli Claudio	Ricerca delle sorgenti di raggi cosmici di energia estrema con i dati dell'osservatorio Pierre Auger e del suo upgrade Auger Prime.
6	Gallice Niccolò	Development of the DUNE Photon Detection System.

Monday 8th July 2019 - h. 2:00 pm - Sala Polvani

N°	candidates	project title
1	Garau Michela	Sviluppo di un sistema di tracciamento in tempo reale per l'Upgrade II di LHCb.
2	Garoffolo Alice	Propagation of gravitational waves through cosmic inhomogeneities in modified gravity.
3	Gavardi Alessandro	High-precision physics at colliders.
4	Giardiello Serena	Second order scalar perturbations generated by first order tensor modes in the primordial Universe.
5	Manitta Andrea	Characterization of the flux tube via Monte Carlo simulations.
6	Marini Ilaria	Characterization of the dynamical state of galaxy clusters in cosmological simulations.

Tuesday 9th July 2019 - h. 9:00 am - Sala Polvani

N°	candidates	project title
1	Maronese Marco	Quantum deep learning applied to protein folding problem.
2	Martire Felice Antonio	CMB B-mode polarization detection and foregrounds characterization at 10 - 42 GHz frequency range of the Southern Hemisphere Sky.
3	Mellinato Michele	Realizzazione e caratterizzazione del Photon Detection System per il Run II di ProtoDUNE-SP.
4	Nicolosi Francesco	Direct measure of the $20\text{Ne}(p,g)21\text{Na}$ reaction in LUNA.
5	Opromolla Michele	Theoretical study of a coherent high repetition rate X-ray Free Electron Laser.
6	Pacelli Rosalba	Statistical Physics of Machine Learning with geometrically structured data.

Tuesday 9th July 2019 - h. 2:00 pm - Sala Polvani

N°	candidates	project title
1	Piazza Federica	Search for Dark Matter in the mono-photon channel with data collected by the ATLAS experiment at LHC.
2	Polettini Marta	Beta decay studies and search for octupole deformation in heavy nuclei.
3	Rinaudo Anna	Soft approximations and possible applications to the anomalous magnetic moment of leptons.
4	Rocutto Lorenzo	Boltzmann Machine Implementation on Quantum Annealing Processors.
5	Romano Riccardo	Ab initio derivation of an energy density functional from Quantum Monte Carlo calculations.
6	Rossi Marco	Model Independent New Physics Searches with Generative Models.
7	Santucci Alessandro	Search for CP violation in charm decays at LHCb.

Wednesday 10th July 2019 - h. 9:00 am - Sala Polvani

N°	candidates	project title
1	Silveravalle Samuele Marco	Physics of Black Holes in quadratic Gravity.
2	Silvetti Federico	All order resummation of high-energy logarithms in the production of a heavy quark pair at the Large Hadron Collider and its impact on parton distribution function determination.
3	Spinelli Riccardo	Planetary Life and its Opponent: From a Galactic to a Cosmic View.
4	Spinicci Luca	Electron Bernstein Resonant Heating and Assisted Start-Up in Nuclear Fusion Plasmas.
5	Stegeman Roy	Supersymmetric Black Hole Solutions and Microstates.
6	Tornamenti Stefano	A description of non-rotating globular clusters by means of two-component self-consistent anisotropic models: new diagnostic tools and new theoretical insights.

Wednesday 10th July 2019 - h. 2:00 pm - Sala Polvani

N°	candidates	project title
1	Trevisan Simone	Hopfield-Kerr model for analogue gravity in dielectrics: Development of a full quantum model to predict Hawking radiation from optical black holes.
2	Vaccaro Francesco	Modeling of memristive devices for bio-inspired computing.
3	Venturelli Davide	Theoretical study of the non equilibrium response of active matter systems subject to external perturbations.
4	Veronesi Francesca Maria Sole	3D biomimetic fluidic platforms development for controlled muscle tissue engineering.
5	Viganò Adriano	Analogue Gravity: Hawking Radiation and Dielectric Black Holes.
6	Ballabene Eric	Probing effective field theory models for new physics using top quark pair production in association with a vector boson.

Thursday 11th July 2019 - h. 9:00 am - Sala Polvani

N°	candidates	project title
1	Balli Filippo	The Worldline Formalism: Extensions and Applications.
2	Barani Mara	Precision g-spectroscopy measurements of one- and two-valence particles/holes nuclei around doubly magic 132Sn .
3	Bindi Andrej	Ricerca di nuove dualità per teorie di gauge non supersimmetriche in 4d.
4	Caimi Federico	Diagramma di fase e polimerizzazione di nucleotidi in soluzione.
5	Campolongo Andrea	Approccio canonico al problema del tempo in "Quantum Gravity" tramite l'utilizzo di un fluido di Schutz.

Thursday 11th July 2019 - h. 2:00 pm - Sala Polvani

N°	candidates	project title
1	Caneloro Alessandro	Stima, effetti e conseguenze della lunghezza minima dovuta alla gravità in sistemi quantistici a basse energie.
2	Candido Alessandro	Causal Dynamical Triangulation: inclusione di una teoria di gauge completa.
3	Carella Elisabetta	Mock galaxy catalogues for probe combination in cosmologies beyond the Λ CDM model.
4	Castellini Stefano	Fluttuazioni di non equilibrio in fluidi complessi in assenza di gravità.
5	Clavico Sara	A systematic study of mass accretion for a sample of rich clusters of galaxies at $z \sim 0$.
6	Costantini Giovanni	Quantum interferometry and decoherence with antimatter.

The candidate will be asked to present his research proposal. The candidate will have **12 minutes** for his presentation, followed by about **5-10 minutes** of questions, and will use a blackboard. The use of the overhead projector is not allowed.

The President of the Committee
Prof. Gianluca Colò

