SCIENTIFIC DISCIPLINARY AREA MATHEMATICS AND INFORMATICS

RESEARCH PROGRAM NO. 1

The assessment criteria for the qualifications and the interview will be affixed on **1.7.2019** at **11.00** in Dipartimento di Matematica (DIMA), Via Dodecaneso 35, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **2.7.2019** at **11.00** in Dipartimento di Matematica (DIMA), Via Dodecaneso 35, Genova.

The interview will be held on **4.7.2019** at **11.00** in Dipartimento di Matematica (DIMA), Via Dodecaneso 35, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

As regards candidates, who are not resident or domiciled in Italy, and those, who are resident or habitually domiciled at a distance of more than 300 Km from the selection centre, the interview, if requested, can also be held by electronic means (SKYPE video conference call) promptly contacting Prof. Giovanni Alberti on the phone number +39 010 353 6913 or via the email address: alberti@dima.unige.it

Scientific coordinator: Prof. Giovanni ALBERTI

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 23.250,00

Title: Infinite-dimensional inverse problems with finite measurements

Description: Many imaging techniques, including electrical impedance tomography, elastography and ultrasonography, which are used in many contexts (medical imaging, nondestructive testing, geophysics, etc.), are modeled by inverse problems for PDE. Their analysis has now provided a deep understanding of their features. However, given the infinite-dimensionality of the problems, the recovery requires infinitely many measurements, which is never achievable in practice. The candidate will work on bridging this gap between theory and applications by combining methods of applied harmonic analysis, machine learning and PDE theory. We expect to obtain theoretical results with finite measurements under realistic assumptions on the unknowns (such as sparsity), and to derive related reconstruction algorithms.

Scientific disciplinary sector: MAT/05 ANALISI MATEMATICA

Place: Dipartimento di Matematica (DIMA)

Required degree:
Laurea magistrale delle classi LM-17 Fisica, LM-18 Informatica, LM-40 Matematica, LM-44 Modellistica matematico-fisica per l'ingegneria, LM-82 Scienze statistiche

Subjects of the interview:
PDE, inverse problems, compressed sensing, sparse regularisation theory, machine learning

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 2

The assessment criteria for the qualifications and the interview will be affixed on **4.7.2019** at **14.00** in Dipartimento di Matematica (DIMA), Via Dodecaneso 35, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **4.7.2019 at 17.00** in Dipartimento di Matematica (DIMA), Via Dodecaneso 35, Genova.

The interview will be held on **5.7.2019** at **11.00** in Dipartimento di Matematica (DIMA), Via Dodecaneso 35, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

As regards candidates, who are not resident or domiciled in Italy, and those, who are resident or habitually domiciled at a distance of more than 300 Km from the selection centre, the interview, if requested, can also be held by electronic means (SKYPE video conference call) promptly contacting Prof. Alberto Sorrentino via the email address: sorrentino@dima.unige.it

Scientific coordinator: Prof. Alberto SORRENTINO

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: Inverse problems and machine learning for pre-surgical evaluation of epilepsy

Description: The post-doc will work within a research project aimed at developing software tools that can support the pre-surgical evaluation of epileptic patients. The aim of his work will be the development of automatic methods for the detection of epileptic spikes in EEG time series, and the subsequent localization of the irritative zone that produced those spikes. To this aim convolutional machine learning methods will be used in combination with Monte Carlo Bayesian methods for source localization.

Scientific disciplinary sector: MAT/08 ANALISI NUMERICA

Place: Dipartimento di Matematica (DIMA)

Required degree:
Dottorato di ricerca in Matematica, Matematica Applicata, Fisica, Ingeneria Biomedica

Subjects of the interview:
The interview will mainly assess the candidate's knowledge about: inverse problems, specifically on Bayesian Monte Carlo methods; machine learning, specifically convolutional networks; mathematical and practical aspects of the inverse problem of electroencephalography, and on open source softwares for eeg data analysis.

RESEARCH PROGRAM NO. 3

Scientific coordinator: Prof.ssa Manuela CHESSA

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: Techniques for interaction in virtual, augmented and mixed reality environments.

Description: Virtual, augmented and mixed reality techniques (VR,AR,MR) allow us to build environments, where real and virtual contents can be combined in several ways, thus allowing various interaction modalities. The main aim of this research activity is to develop methods and techniques to build innovative VR/MR/AR applications, which allow people to: (i) develop interactive environments where virtual and real objects can be manipulated in an effective way with respect to the task and the user; (ii) develop interactive platforms for the evaluation and the exercise of the cognitive and sensorimotor capabilities.

Scientific disciplinary sector: INF/01 INFORMATICA

Place: Dipartimento interscuola di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS)

Required degree:
Laurea Magistrale della classe LM-18 Informatica o LM-21 Ingegneria biomedica o LM-32 Ingegneria informatica.

Subjects of the interview: Fundamentals of Virtual and Augmented Reality; fundamentals of visual perception and interaction; mechanisms of visual attention; interaction techniques in VR environments; object-oriented programming (C++ and/or C# and/or Java) and game engines (Unreal engine and/or Unity3D).

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 4

The assessment criteria for the qualifications and the interview will be affixed on **3.7.2019** at **8.00** in Polo Valle Puggia, Dipartimento interscuola di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS), Via Dodecaneso 35, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **3.7.2019** at **11.30** in Polo Valle Puggia, Dipartimento interscuola di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS), Via Dodecaneso 35, Genova.

The interview will be held on **3.7.2019** at **12.00** in Polo Valle Puggia, Dipartimento interscuola di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS), Via Dodecaneso 35, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

As regards candidates, who are not resident or domiciled in Italy, and those, who are resident or habitually domiciled at a distance of more than 300 Km from the selection centre, the interview, if requested, can also be held by electronic means (SKYPE video conference call) promptly contacting Prof. Francesco Masulli via the email address: francesco.masulli@unige.it

Scientific coordinator: Prof. Francesco MASULLI

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Finanziamento: Bando Fondi per la ricerca di Ateneo (incentivazione europea), progetto Xpert

Title: Short-Term Urban Traffic Forecasting

Description: In the last few years our research group developed the system ITACA (Intelligent TrAffic ForeCAster), an artificial intelligence tool based on fuzzy clustering and committees of neural networks able to forecast traffic in the short term using data collected from multiple sources. The forecasting horizon was from 5 to 10 minutes in the future. This project will concern the further development of the predictive model of short-term urban traffic using a machine learning approach, the engineering of the software developed, and the experimentation on the field with a pilot in the Municipality of Genoa.

Scientific disciplinary sector: INF/01 INFORMATICA

Place: Dipartimento interscuola di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS)

Required degree:
Laurea Magistrale delle classi: LM-17 Fisica, LM-18 Informatica, LM-25 Ingegneria dell'automazione, LM-27 Ingegneria delle telecomunicazioni, LM-29 Ingegneria elettronica, LM-32 Ingegneria informatica, LM-40 Matematica, o LM-82 Scienze statistiche.

 Subjects of the interview:
•   Machine learning and computational intelligence for data streams
•   Signal analysis
•   Computer programming
•   Previous research activity

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 5

Scientific coordinator: Prof. Lorenzo ROSASCO

NO. 2 research fellowships - Duration 2 year – Annual pre-tax amount: € 23.250,00

Finanziamento: ERC-2018-COG Efficient algorithms for sustainable machine learning SLING

Title: Algorithms for structured machine learning

Description: The projects aim at developing theoretical and algorithmic ideas to explain the success of current systems for structured data and suggest the development of novel practical and efficient solutions for structured machine learning for large scale problems. Candidates must have strong mathematical and computational skills.
Topics of interest include but are not limited to: data with geometric structure (graph, string, permutations, manifolds) as well as time structure (dynamical systems).
While the emphasis is on methodological and computational aspects, the candidates will have the opportunity to work in close collaborations on a number of application, including high energy physics data, robotics.

Scientific disciplinary sector: INF/01 INFORMATICA

Place: Dipartimento interscuola di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS)

Required degree:
Laurea V.O. in Fisica, in Informatica, in Ingegneria informatica, in Matematica, in Ingegneria delle telecomunicazioni, in Ingegneria elettrica, in Ingegneria elettronica, in Ingegneria nucleare, in Ingegneria industriale, in Scienze economiche, statistiche e sociali, in Scienze statistiche ed attuariali; Laurea Specialistica delle classi 20/S Fisica, 23/S Informatica, 35/S Ingegneria informatica, 45/S Matematica, 45/S Matematica, 50/S Modellistica matematico-fisica per l'ingegneria, 30/S Ingegneria delle telecomunicazioni, 31/S Ingegneria elettrica, 32/S Ingegneria elettronica, 33/S Ingegneria energetica e nucleare, 36/S Ingegneria meccanica, 91/S Statistica economica, finanziaria ed attuariale, 91/S Statistica economica, finanziaria ed attuariale; Laurea Magistrale delle classi: LM-17 Fisica, LM-18 Informatica, LM-32 Ingegneria Informatica, LM-40 Matematica, LM-44 Modellistica Matematico-Fisica per L'ingegneria, LM-27 Ingegneria delle Telecomunicazioni, LM-28 Ingegneria Elettrica, LM-29 Ingegneria Elettronica, LM-30 Ingegneria Energetica e Nucleare, LM-33 Ingegneria Meccanica, LM-82 Scienze Statistiche, LM-83 Scienze Statistiche Attuariali e Finanziarie

Subjects of the interview:
Elements of machine learning theory and algorithms, and related fields (signal processing, optimization, statistics, applied mathematics)

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 6

Scientific coordinator: Prof. Lorenzo ROSASCO

NO. 4 research fellowships - Duration 1 year – Annual pre-tax amount: € 27.133,00

Finanziamento: ERC-2018-COG Efficient algorithms for sustainable machine learning SLING

Title: Theory and Algorithms for machine learning

Description: The projects aim at developing theoretical and algorithmic ideas to explain the success of current systems and suggest the development of novel efficient solutions. Candidates must have strong mathematical and computational skills.
Topics of interest include but are not limited to: deterministic and random projections/ sketching, optimization methods for non-smooth/non convex problems (stochastic, accelerated, distributed, parallel methods).
While the emphasis is on methodological and computational aspects, the candidates will have the opportunity to work in close collaborations on a number of application, including high energy physics data, robotics.

Scientific disciplinary sector: INF/01 INFORMATICA

Place: Dipartimento interscuola di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS)

Required degree:
Laurea V.O. in Fisica, in Informatica, in Ingegneria informatica, in Matematica, in Ingegneria delle telecomunicazioni, in Ingegneria elettrica, in Ingegneria elettronica, in Ingegneria nucleare, in Ingegneria industriale, in Scienze economiche, statistiche e sociali, in Scienze statistiche ed attuariali; Laurea Specialistica delle classi 20/S Fisica, 23/S Informatica, 35/S Ingegneria informatica, 45/S Matematica, 45/S Matematica, 50/S Modellistica matematico-fisica per l'ingegneria, 30/S Ingegneria delle telecomunicazioni, 31/S Ingegneria elettrica, 32/S Ingegneria elettronica, 33/S Ingegneria energetica e nucleare, 36/S Ingegneria meccanica, 91/S Statistica economica, finanziaria ed attuariale, 91/S Statistica economica, finanziaria ed attuariale; Laurea Magistrale delle classi: LM-17 Fisica, LM-18 Informatica, LM-32 Ingegneria Informatica, LM-40 Matematica, LM-44 Modellistica Matematico-Fisica per L'ingegneria, LM-27 Ingegneria delle Telecomunicazioni, LM-28 Ingegneria Elettrica, LM-29 Ingegneria Elettronica, LM-30 Ingegneria Energetica e Nucleare, LM-33 Ingegneria Meccanica, LM-82 Scienze Statistiche, LM-83 Scienze Statistiche Attuariali e Finanziarie

Subjects of the interview:
Elements of machine learning theory and algorithms, and related fields (signal processing, optimization, statistics, applied mathematics).

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 7

Scientific coordinator: Prof. Lorenzo ROSASCO

NO. 2 research fellowships - Duration 1 year – Annual pre-tax amount: € 31.015,00

Finanziamento: ERC-2018-COG Efficient algorithms for sustainable machine learning SLING

Title: Efficent Algorithms for high dimentional data

Description: The projects aim at developing theoretical and algorithmic ideas to explain the success of current systems for high dimensional data sets and also suggest the development of novel solutions. Candidates must have strong mathematical and computational skills. Topics of interest include but are not limited to: deterministic and random projections/ sketching, data with geometric structure (graph, string, permutations, manifolds). The emphasis is on methodological and computational aspects.

Scientific disciplinary sector: INF/01 INFORMATICA

Place: Dipartimento interscuola di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS)

Required degree:
Laurea V.O. in Fisica, in Informatica, in Ingegneria informatica, in Matematica, in Ingegneria delle telecomunicazioni, in Ingegneria elettrica, in Ingegneria elettronica, in Ingegneria nucleare, in Ingegneria industriale, in Scienze economiche, statistiche e sociali, in Scienze statistiche ed attuariali; Laurea Specialistica delle classi 20/S Fisica, 23/S Informatica, 35/S Ingegneria informatica, 45/S Matematica, 45/S Matematica, 50/S Modellistica matematico-fisica per l'ingegneria, 30/S Ingegneria delle telecomunicazioni, 31/S Ingegneria elettrica, 32/S Ingegneria elettronica, 33/S Ingegneria energetica e nucleare, 36/S Ingegneria meccanica, 91/S Statistica economica, finanziaria ed attuariale, 91/S Statistica economica, finanziaria ed attuariale; Laurea Magistrale delle classi: LM-17 Fisica, LM-18 Informatica, LM-32 Ingegneria Informatica, LM-40 Matematica, LM-44 Modellistica Matematico-Fisica per L'ingegneria, LM-27 Ingegneria delle Telecomunicazioni, LM-28 Ingegneria Elettrica, LM-29 Ingegneria Elettronica, LM-30 Ingegneria Energetica e Nucleare, LM-33 Ingegneria Meccanica, LM-82 Scienze Statistiche, LM-83 Scienze Statistiche Attuariali e Finanziarie

Subjects of the interview:
Elements of machine learning theory and algorithms, and related fields (signal processing, optimization, statistics, applied mathematics).

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 8

The assessment criteria for the qualifications and the interview will be affixed on **25.6.2019** at **15.00** in Dipartimento di Fisica (DIFI) Via Dodecaneso 33, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **25.6.2019** at **18.00** in Dipartimento di Fisica (DIFI) Via Dodecaneso 33, Genova.

The interview will be held on **26.6.2019** at **14.00** Dipartimento di Fisica (DIFI) Via Dodecaneso 33, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

As regards candidates, who are not resident or domiciled in Italy, and those, who are resident or habitually domiciled at a distance of more than 300 Km from the selection centre, the interview, if requested, can also be held by electronic means (SKYPE video conference call) promptly contacting Prof. Michele Biasotti via the email address: michele.biasotti@ge.infn.it

Scientific coordinator: Prof. Michele BIASOTTI

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: Cryogenic detectors development for radioactive decay studies and calorimetric measurements

Description: The winner of this position will develop cryogenic micro calorimeters with the aim to study radioactive decays also for the direct neutrino mass measurement. The activity will concern their design, fabrication and characterization. Moreover, will be required the execution of scientific measurements using the detectors developed.

Scientific disciplinary sector: FIS/01 FISICA SPERIMENTALE

Place: Dipartimento di Fisica (DIFI)

Required degree:
Laurea V.O. in Fisica, Laurea Specialistica delle classi 20/S Fisica, Laurea Magistrale della classe LM-17 Fisica.

Subjects of the interview:
Nuclear spectroscopy, rare decays, direct neutrino mass measurements, cryogenic calorimeters micromachining techniques, implantation and isotopic separation, cryogenics, pulse acquisition and elaboration.

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 9

The assessment criteria for the qualifications and the interview will be affixed on **1.7.2019** at **10.00** in Dipartimento di Fisica (DIFI), Via Dodecaneso 33, Genova

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **1.7.2019** at **14.00** in Dipartimento di Fisica (DIFI), Via Dodecaneso 33, Genova

The interview will be held on **1.7.2019** at **15.00** in Dipartimento di Fisica (DIFI), Via Dodecaneso 33, Genova

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

As regards candidates, who are not resident or domiciled in Italy, and those, who are resident or habitually domiciled at a distance of more than 300 Km from the selection centre, the interview, if requested, can also be held by electronic means (SKYPE video conference call) promptly contacting Prof. Simone Marzani via the email address: simone.marzani@unige.it

Scientific coordinator: Prof. Simone MARZANI

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 27.133,00

Title: Analytical studies and Monte Carlo simulations for jet physics.

Description: This research project will study the impact of perturbative and non-perturbative corrections to the physics of hadronic jets, which are produced in high-energy collisions. In particular, analytical techniques, Monte Carlo simulations and modern numerical techniques will be employed in order to characterise the structure of hadronic jets. The study of hadronisation corrections and of those phenomena known as double- and multiple-parton interactions, which noticeably complicate the theoretical description of these physical processes, will be particularly important. The study will initially focus on proton-proton collisions and then will eventually explore collisions between protons and heavy ions.

Scientific disciplinary sector: FIS/02 FISICA TEORICA, MODELLI E METODI MATEMATICI

Place: Dipartimento di Fisica (DIFI)

Required degree:
Laurea Magistrale della classe LM-17 Fisica

Subjects of the interview:
Candidate CV; publications; knowledge of the topics related to the research project; specific skills such as computer skills, data simulations; development of computer codes.

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 10

Scientific coordinator: Prof.ssa Giulia ROSSI

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 23.250,00

Title: Computational study of nanoparticle-membrane interactions towards the computational design of fusogenic nanoparticles

Description: Cell membrane fusion is a ubiquitous and fundamental process in biological systems. The post-doc position is aimed at the understanding, via computational methods and with the possible involvement of experimental partners, of the role played by monolayer-protected metal nanoparticles during the interaction between approaching model lipid membranes. The ideal candidate has working experience with Molecular Dynamics and enhanced sampling techniques applied to condensed matter and biological systems. Background knowledge about the interaction between synthetic nanoparticles and biological membranes is an asset, as well as a good knowledge of the state of the art comprehension of biological membrane fusion processes in vivo.

Scientific disciplinary sector: FIS/03 Fisica della materia

Place: Dipartimento di Fisica (DIFI)

Required degree:
Laurea V.O. in Fisica; Laurea Specialistica della classe 20/S Fisica; Laurea Magistrale della classe LM-17 Fisica

Subjects of the interview:
The candidate will be asked to present, briefly, his previous experience in the field of computational condensed matter physics and biophysics. The rest of the interview will be aimed at verifying 1) the candidate motivations towards the project and, more in general, towards research in the condensed-matter and biophysics fields, 2) the candidate's mastering of computational techniques such as Molecular Dynamics, Metadynamics, Umbrella Sampling as well as his/her knowledge of the force fields (both atomistic and coarse-grained) most often used to model lipid membranes and their interactions with synthetic nanoparticles, 3) the candidate's knowledge about the state of the art comprehension of the fusion mechanisms in vivo and in vitro (the latter involving synthetic fusogenic agents).

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 11

The assessment criteria for the qualifications and the interview will be affixed on **8.7.2019** at **8.30** in Dipartimento di Fisica (DIFI), Via Dodecaneso 33, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **8.7.2019** at **12.30** in Dipartimento di Fisica (DIFI), Via Dodecaneso 33, Genova.

The interview will be held on **8.7.2019** at **15.00** in Dipartimento di Fisica (DIFI), Via Dodecaneso 33, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof. Dario MASSABO'

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: Development of measurement methods for the study of pollutants and bio-aerosols in an atmospheric simulation chamber.

Description: The research program concerns the study of the interaction between the bio-aerosol (particles of biogenic origin suspended in the atmosphere) and the main atmospheric pollutants present in the urban environment. The study plans to use the unique atmospheric simulation chamber on the national territory (ChAMBRe - Chamber for Aerosol Modeling and Bio-aerosol Research), installed at the Physics Department of the University of Genoa. Experiments will regard injection in and extraction from the chamber of selected bacterial species, or spores of epidemiological interest. This bio-aerosol will be exposed to various pollutants, typical of the urban environment, in order to quantitatively evaluate the overall response of the system.

Scientific disciplinary sector: FIS/07 FISICA APPLICATA (A BENI CULTURALI, AMBIENTALI, BIOLOGIA E MEDICINA)

Place: Dipartimento di Fisica (DIFI)

Required degree:
Laurea Magistrale della classe LM-17 Fisica, LM53 Scienza e Ingegneria dei Materiali e LM54 Scienze Chimiche.

Subjects of the interview:
Atmospheric Simulation Chambers, Atmospheric Aerosol, Airborne Microbiology, Atmospheric Photochemistry

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 12

The assessment criteria for the qualifications and the interview will be affixed on **8.7.2019** at **18.00** in Dipartimento di Chimica e Chimica Industriale (DCCI), Via Dodecaneso 31, Genova

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **10.7.2019** at **18.00** in Dipartimento di Chimica e Chimica Industriale (DCCI), Via Dodecaneso 31, Genova

The interview will be held on **19.7.2019** at **10.00** in Dipartimento di Chimica e Chimica Industriale (DCCI), Via Dodecaneso 31, Genova

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

As regards candidates, who are not resident or domiciled in Italy, and those, who are resident or habitually domiciled at a distance of more than 300 Km from the selection centre, the interview, if requested, can also be held by electronic means (SKYPE video conference call) promptly contacting Prof.ssa Lisa Moni via the email address: lisa.moni@unige.it

Scientific coordinator: Prof.ssa Lisa MONI

NO. 1 research fellowship - Duration 18 months – Annual pre-tax amount: € 19.367,00

Title: Study and Application of carbon-based catalysts to modern organic synthesis

Description: Europe is registering an urgent request for sustainable, simple and selective synthetic methodologies for the preparation of "smart materials" and high added value compounds. In this context, the use of nanostructured carbon-based materials to promote chemical reactions, commonly called "carbocatalysis", is gaining more and more importance in the field of modern organic synthesis. The project aims to study the application of carbocatalysis in different types of organic transformations, such as multicomponent reactions, C-C bond formation reactions and dearomatization processes. The most promising protocols will also be implemented in flow conditions to improve crucial aspects such as chemical efficiency, catalyst recovery, reduced and limited accumulation of hazardous reagents.

Scientific disciplinary sector: CHIM/06 CHIMICA ORGANICA

Place: Dipartimento di Chimica e Chimica Industriale (DCCI)

Required degree:
Laurea Magistrale delle classi LM-41 Medicina e Chirurgia, LM-51 Psicologia

Subjects of the interview:
Laurea V.O. in Chimica, in Chimica e Tecnologie Farmaceutiche o in Chimica e tecnologia farmaceutiche, in Chimica Industriale; Laurea Specialistica della classe 62/S Scienze chimiche, 14/S Farmacia e farmacia industriale, 81/S Scienze e tecnologie della chimica industriale; Laurea Magistrale della classe LM-54 Scienze chimiche, LM-13 Farmacia e farmacia industriale, LM-71 Scienze e tecnologie della chimica industriale.

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 13

The assessment criteria for the qualifications and the interview will be affixed on **26.9.2019** at **8.00** in Dipartimento di Ingegneria delle Civile, Chimica e Ambientale (DICCA), Via all'Opera Pia 15a II piano, Genova

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **26.9.2019** at **11.00** in Dipartimento di Ingegneria delle Civile, Chimica e Ambientale (DICCA), Via all'Opera Pia 15a II piano, Genova

The interview will be held on **26.9.2019** at **12.30** in Dipartimento di Ingegneria delle Civile, Chimica e Ambientale (DICCA), Via all'Opera Pia 15a II piano, Genova

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof. Antonio BARBUCCI

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 23.250,00

Title: Electrodic materials for energy and environment

Description: The research focus materials for energy and environmental applications. The materials will be studied in the frame of electrochemical systems like fuel cells, electrolysers. Co-electrolysis of water and carbon dioxide to produce hydrogen and carbon monoxide in the cathodic side of the system and oxygen in the anodic side is also a topic of the research activity. Materials for fuel cells and electrolysers will be designed, synthetized, shaped and characterized to obtain laboratory electrochemical cells. The prepared materials and electrochemical cell will be subjected to electrochemical characterization to understand overall behavior and process mechanisms.

Scientific disciplinary sector: CHIM/07 FONDAMENTI CHIMICI DELLE TECNOLOGIE

Place: Dipartimento di Ingegneria delle Civile, Chimica e Ambientale (DICCA)

Required degree:
Dottorato di ricerca in Civil, Chemical and Environmental Engineering, Curriculum of Chemical, Material and Process Engineering

Subjects of the interview:
The topic of interview will focus the experience of the candidates on electrochemistry, electrochemical techniques for energy systems, material science and environmental electrochemistry.

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 14

The assessment criteria for the qualifications and the interview will be affixed on **26.6.2019** at **9.00** in Dipartimento di Ingegneria delle Civile, Chimica e Ambientale (DICCA), Via Montallegro 1, Genova

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **26.6.2019** at **12.00** Dipartimento di Ingegneria delle Civile, Chimica e Ambientale (DICCA), Via Montallegro 1, Genova

The interview will be held on **26.6.2019** at **15.00** in Dipartimento di Ingegneria delle Civile, Chimica e Ambientale (DICCA), Via Montallegro 1, Genova

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof. Massimiliano BURLANDO

NO. 1 research fellowship - Duration 2 years – Annual pre-tax amount: € 19.367,00

Title: Support activity to the study of the spatial and temporal evolution of the wind fields in thunderstorms

Description: In the context of the European Projects "Wind and Ports" and "Wind, Ports, and Sea", a wind monitoring network was realized in the ports of the Northern Tyrrhenian Sea. Recently, the network was equipped with new instruments for wind measurement (1 LiDAR scanner) and structural monitoring. Following the installation of these new instruments, a further development of the existing database is required in order to include the new recorded measurements and the creation of appropriate interfaces for data usage. Moreover, a support activity to the analysis of anemometric and LiDAR measurements is required to study the spatial structure and the temporal evolution of the wind field in thunderstorms that develop in the area of Genoa Voltri.

Scientific disciplinary sector: GEO/12 OCEANOGRAFIA E FISICA DELL'ATMOSFERA

Place: Dipartimento di Ingegneria Civile, Chimica e Ambientale (DICCA)

Required degree:
Dottorato di ricerca in Scienze Ambientali, Fisica o Ingegneria Civile e Ambientale

Subjects of the interview:
Fundamentals of atmospheric physics and wind engineering. Basic knowledge of computer programming, the Linux operating system and Matlab scripting language. Analysis and management of anemometric data bases and post-processing of meteorological measurements.

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 15

The assessment criteria for the qualifications and the interview will be affixed on **3.7.2019** at **9.45** in Dipartimento di Scienze della Terra, dell'ambiente e della Vita (DISTAV), Corso Europa 26, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **3.7.2019** at **13.00** in Dipartimento di Scienze della Terra, dell'ambiente e della Vita (DISTAV), Corso Europa 26, Genova.

The interview will be held on **3.7.2019** at **14.00** in Dipartimento di Scienze della Terra, dell'ambiente e della Vita (DISTAV), Corso Europa 26, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof. Marco CAPELLO

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: Water mycoremediation techniques in port environments to reduce pollution by heavy metals and PAHs. (EU Project Interreg V-A Italy France Maritime 2014-2020 "GEREMIA - Gestione dei reflui per il miglioramento delle acque portuali (Management of wastewater for the improvement of port waters)" - CUP D41I18000600005).

Description: Blue Growth is the long-term path that our territories will have to follow, and the ports will be among the main actors. The evaluation of impacts and anthropogenic pressures on ecosystems will have to be developed on a solid scientific basis as suggested by modern management approaches (e.g., Ecosystem-based Management). Following this approach, pollution risk management must be shared on a transboundary basis. GEREMIA aims to train and support, with innovative tools and solutions, who will be responsible for managing port waters. The harmonization of modeling, monitoring and analysis of risk management procedures will lead to the preparation of a DSS developed specifically for Port. The proposed management strategies will be applied in Pilot Actions on several Port, with installation of bioremediation systems and waste containment, and training of intervention procedures.

Scientific disciplinary sector: GEO/12 OCEANOGRAFIA E FISICA DELL'ATMOSFERA

Place: Dipartimento di Scienze della Terra, dell'ambiente e della Vita (DISTAV)

Required degree:
Dottorato di ricerca in Scienze e Tecnologie per l'Ambiente e il Territorio (Curriculum: Botanica applicata all'agricoltura e all'ambiente)

Subjects of the interview:
Mycoremediation and use of marine fungal strains for the cleaning of port waters, bioremediation activities in port environments, port hydrodynamics.

RESEARCH PROGRAM NO. 16

The assessment criteria for the qualifications and the interview will be affixed on **2.7.2019** at **9.45** in Dipartimento di Scienze della Terra, dell'ambiente e della Vita (DISTAV), Corso Europa 26, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **2.7.2019** at **13.00** in Dipartimento di Scienze della Terra, dell'ambiente e della Vita (DISTAV), Corso Europa 26, Genova.

The interview will be held on **2.7.2019** at **14.00** in Dipartimento di Ingegneria delle Civile, Chimica e Ambientale (DICCA) Via Montallegro 1, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof. Marco CAPELLO

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: Check and search of possible sources of natural and anthropic pollution of port waters. (EU Project Interreg V-A Italy France Maritime 2014-2020 "GEREMIA - Gestione dei reflui per il miglioramento delle acque portuali (Management of wastewater for the improvement of port waters)" - CUP D41I18000600005).

Description: Blue Growth is the long-term path that our territories will have to follow, and the ports will be among the main actors. The evaluation of impacts and anthropogenic pressures on ecosystems will have to be developed on a solid scientific basis as suggested by modern management approaches (e.g., Ecosystem-based Management). Following this approach, pollution risk management must be shared on a transboundary basis. GEREMIA aims to train and support, with innovative tools and solutions, who will be responsible for managing port waters. The harmonization of modeling, monitoring and analysis of risk management procedures will lead to the preparation of a DSS developed specifically for Port. The proposed management strategies will be applied in Pilot Actions on several Port, with installation of bioremediation systems and waste containment, and training of intervention procedures.

Scientific disciplinary sector: GEO/12 OCEANOGRAFIA E FISICA DELL'ATMOSFERA

Place: Dipartimento di Scienze della Terra, dell'ambiente e della Vita (DISTAV)

Required degree:
Laurea Magistrale delle classi LM-6 Biologia, LM-60 Scienze della natura, LM-74 Scienze e Tecnologie Geologiche, LM-75 Scienze e tecnologie per l'ambiente e il territorio.

Subjects of the interview:
Harbor hydrodynamics, abiotic matrix sampling techniques, lithology of the Genoese port environment.

RESEARCH PROGRAM NO. 17

The assessment criteria for the qualifications and the interview will be affixed on **4.7.2019** at **9.00** in Dipartimento di Scienze della Terra, dell'ambiente e della Vita (DISTAV), Corso Europa 26, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **4.7.2019** at **13.00** in Dipartimento di Scienze della Terra, dell'ambiente e della Vita (DISTAV), Corso Europa 26, Genova.

The interview will be held on **4.7.2019** at **14.00** in Dipartimento di Scienze della Terra, dell'ambiente e della Vita (DISTAV), Corso Europa 26, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof. Paolo POVERO

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: Marine Decision Support System for Blue growth (MDSS-Blue Growth). (UE Interreg Project Italia Francia Marittimo 2014 – 2020 NEPTUNE-gestioNe sostEnibile caPitale naTurale frUizioNE)

Description The project aims to plan, develop, and realize a decision support system (DSS) in order to evaluate environmental and economic costs and benefits related to the achieving of construction projects, intervention or anthropic changes in the coastal and off-shore marine system, and to the connected ecosystem services in a sustainable development and a Blue growth perspective, following an approach based on environmental accounting and multi-criteria analyses. The project will provide a georeferenced information system (WebGIS), a handy tool for integrated analysis useful for the different managers and administrators of the coastal and off-shore marine domain. Moreover, preliminary information on economic compensatory estimate for the used environmental services and the possible damages recovery will be supplied (PES – Payment for Ecosystem Services).

Scientific disciplinary sector: BIO/7 ECOLOGIA

Place: Dipartimento di Scienze della Terra, dell'ambiente e della Vita (DISTAV)

Required degree:
Laurea V.O. in Scienze Ambientali o in Scienze Naturali; Laurea Specialistica della classe 82/S Scienze e Tecnologie per l'ambiente e il territorio o della classe 68/S Scienze della Natura; Laurea Magistrale della classe della classe LM-75 Scienze e Tecnologie per l'ambiente e il territorio o della classe LM-60 Scienze della Natura.

Subjects of the interview:
Oceanography and Marine Ecology, Systemic Ecology, Ecological informatics, methods, techniques, and statistics applied to data management, geospatial data sharing and processing services, ecosystem functions and services and their evaluation, Environment Economy. The candidate will have to demonstrate good knowledge on the updated results published in the international scientific literature of the sector and on English language.

The candidate will need to prove his/her knowledge of English languages.

RESEARCH PROGRAM NO. 18

The assessment criteria for the qualifications and the interview will be affixed on **25.6.2019** at **9.30** in Laboratorio di Oncologia Cellulare, IST Nord, IRCCS Ospedale Policlinico San Martino, Largo Rosanna Benzi 10, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **25.6.2019** at **13.00** in Laboratorio di Oncologia Cellulare, IST Nord, IRCCS Ospedale Policlinico San Martino, Largo Rosanna Benzi 10, Genova.

The interview will be held on **25.6.2019** at **14.30** in Laboratorio di Oncologia Cellulare, IST Nord, IRCCS Ospedale Policlinico San Martino, Largo Rosanna Benzi 10, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof. Aldo PAGANO

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: Genetic alterations in Neuroblastoma.

Description: Our project aims to identify variants in DNA associated with the onset of neuroblastoma. In order to achieve our goals we will try to: 1) Identify the common risk variants associated with the onset of neuroblastoma. 2) Determine how neuroblastoma susceptibility genes lead to the malignant phenotype. 3) generate new potential targets on which to design personalized treatment strategies and prognoses.

Scientific disciplinary sector: BIO/13 BIOLOGIA APPLICATA

Place: Dipartimento di Medicina Sperimentale (DIMES)

Required degree:
Laurea V.O. in Biotecnologie, Scienze biologiche, Medicina e Chirurgia, Chimica, Laurea Magistrale delle classi LM-6 Biologia, LM-41 Medicina e chirurgia, LM-9 Biotecnologie mediche, veterinarie e farmaceutiche, LM-54 Scienze chimiche, LM-13 Farmacia e Farmacia industriale.

Subjects of the interview:
Our project aims to identify variants in DNA associated with the onset of neuroblastoma. In order to achieve our goals we will try to: 1) Identify the common risk variants associated with the onset of neuroblastoma. 2) Determine how neuroblastoma susceptibility genes lead to the malignant phenotype. 3) generate new potential targets on which to design personalized treatment strategies and prognoses.

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 19

The assessment criteria for the qualifications and the interview will be affixed on **25.6.2019** at **10.00** in Dipartimento di Farmacia (DIFAR) – Sezione di Farmacologia e Tossicologia - Viale Cembrano 4, Genova

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **25.6.2019** at **14.00** Dipartimento di Farmacia (DIFAR) – Sezione di Farmacologia e Tossicologia - Viale Cembrano 4, Genova

The interview will be held on **25.6.2019** at **15.00** in Dipartimento di Ingegneria Meccanica, Energetica, Gestionale e dei Trasporti (DIME), Via Montallegro 1, Genova

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof. Giambattista BONANNO

NO. 2 research fellowships - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: Maladaptive responses to stress: study of the mechanisms to uncover new therapeutic targets in neuropsychiatric diseases.

Description: Detection of stress contribution to neuropsychiatric diseases is essential to identify ethiopathogenesis and possible innovative therapeutic strategies. To identify the basis of individual responses, this project will address the stress-induced cellular and molecular changes of GABA and glutamate transmission in neurons and astrocytes of rat prefrontal and frontal cortex (PFC/FC), focusing on vulnerable and resilient animals. The project will study: a) changes of neuro- and glio-transmitter release in PFC/FC during time after stress application; b) short- and long-term modifications correlating with vulnerability and resilience to stress: c) the mechanisms at the basis of the responses observed in vulnerable and resilient animals.

Scientific disciplinary sector: BIO/14 FARMACOLOGIA

Place: Dipartimento di Farmacia (DIFAR)

Required degree:
Laurea V.O. in Farmacia, Chimica e Tecnologie Farmaceutiche o Chimica e tecnologia farmaceutiche; Laurea Specialistica della classe 14/S Farmacia e farmacia industriale; Laurea Magistrale della classe LM-13 Farmacia e Farmacia Industriale.

Subjects of the interview:
Dissection techniques of brain parts of small rodents. Techniques for the purification of subcellular particles of neuronal and glial origin. Techniques for the preparation of primary cultures of neurons and astrocytes. Techniques for the evaluation of ex-vivo neuronal and glial transmission. Techniques related to the characterization of presynaptic parameters that regulate neurotransmitter release and exocytotic mechanisms. Techniques for the characterization of mRNA and protein expression in cellular and subcellular preparations. In-vivo behavioral techniques related to the administration of various types of stress and to the determination of the effects related to vulnerability and resilience.

The candidate will need to prove his/her knowledge of English language.

RESARCH PROGRAM NO. 20

The assessment criteria for the qualifications and the interview will be affixed on **27.6.2019** at **10.00** in Dipartimento di Scienze della salute (DISSAL) sezione di Biostatistica, Via Pastore 1, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **27.6.2019** at **14.00** in Dipartimento di Scienze della salute (DISSAL) sezione di Biostatistica, Via Pastore 1, Genova.

The interview will be held on **27.6.2019** at **15.00** in Dipartimento di Scienze della salute (DISSAL) sezione di Biostatistica, Via Pastore 1, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof.ssa Francesca LANTIERI

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: Search and analysis of genetic variants involved in the susceptibility to enterocolitis in patients suffering from Hirschsprung disease

Description: Hirschsprung's disease (HSCR) is a congenital malformation of the intestine that leads to constipation. The most serious and common complication is enterocolitis. This susceptibility has led us to search for genetic risk factors through sequencing of the exomes of 12 patients HSCR with enterocolitis associated and 12 without. These results need to be analyzed. The most promising variants as candidates for enterocolitis must be confirmed by conventional methods, analyzed also in the parents and possibly evaluated in a larger panel of patients. The most convincing biological candidates need to be analyzed by functional testing in silico and in vitro.

Scientific disciplinary sector: MED/01 STATISTICA MEDICA

Place: Dipartimento di Scienze della salute (DISSAL)

Required degree:
Laurea Magistrale della classe LM-6 Biologia, Laurea Magistrale della classe LM-9 Biotecnologie mediche, veterinarie e farmaceutiche.

Subjects of the interview:
"Screening" of genetic variants, genetic association and functional tests of variants

RESEARCH PROGRAM NO. 21

The assessment criteria for the qualifications and the interview will be affixed on **2.7.2019** at **9.30** in Dipartimento di Medicina Interna e Specialità Mediche (DIMI), Viale Benedetto XV, 6, Genova

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **2.7.2019** at **12.30** in Dipartimento di Medicina Interna e Specialità Mediche (DIMI), Viale Benedetto XV, 6, Genova

The interview will be held on **2.7.2019** at **14.00** in Dipartimento di Medicina Interna e Specialità Mediche (DIMI), Viale Benedetto XV, 6, Genova

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof. Giacomo GARIBOTTO

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 27.133,00

Title: P53 and the control of cellular programming in diabetic nephropathy: apoptosis vs. senescence

Description: Studies in patients with diabetic nephropathy (DN) report a loss of cells that correlates with the progression to diabetic glomerulosclerosis .Both cell apoptosis and senescence are accelerated in DN. We shall examine the in vitro effects of several diabetes-related stressors on senescence markers, replicative ability, telomerase and telomere lenght and apoptosis in primary cultures of human mesangial cells, podocytes and glomerular endothelial cells. To study how P16 and p53 DNA methylation play a major role in determining the kidney cell fate in DN quantitative methylation analysis will be performed These studies will help to understand if epigenetic regulation of p53 and/or p16INKa are mechanisms that modulate the kidney cell phenotype towards senescence or apoptosis in DN.

Scientific disciplinary sector: MED/14 NEFROLOGIA

Place: Dipartimento di Medicina Interna e Specialità Mediche (DIMI)

Required degree:
Dottorato di ricerca in Biologia e fisiopatologia cardiaca, vascolare, renale e metabolica.

Subjects of the interview:
Regulation of cell cycle in diabetic nephropathy: mechanisms of cell loss, apoptosis, cell senescence

The candidate will need to prove his/her knowledge of English language.

RESEARCH PROGRAM NO. 22

The assessment criteria for the qualifications and the interview will be affixed on **21.6.2019** at **9.30** in Amministrazione/Direzione Dipartimento di Medicina Interna e Specialità Mediche (DIMI) I° piano in Viale Benedetto XV n 6, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **21.6.2019** at **12.30** in Amministrazione/Direzione Dipartimento di Medicina Interna e Specialità Mediche (DIMI) I° piano in Viale Benedetto XV n 6, Genova.

The interview will be held on **21.6.2019** at **14.00** in Aula multimediale I° piano Avancorpo Dipartimento di Medicina Interna e Specialità Mediche (DIMI), in Viale Benedetto XV n 6, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

As regards candidates, who are not resident or domiciled in Italy, and those, who are resident or habitually domiciled at a distance of more than 300 Km from the selection centre, the interview, if requested, can also be held by electronic means (SKYPE video conference call) promptly contacting Prof. Michele Cea on the phone number +39 010 3537970 or via the email address: michele.cea@unige.it

Scientific coordinator: Prof. Michele CEA

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 23.250,00

Title: Investigating the functional and clinical relevance of rna splicing dysregulation in multiple myeloma

Description: The process of RNA splicing has been known for some time as regulating gene function in normal cells, but only very recently has its dysregulation been implicated in cancer. Preliminary studies clearly demonstrate that RNA splicing provides a new mechanism for augmenting the transformed state in MM cells. Here we will examine the poorly-defined molecular and cellular mechanisms that drive RNA splicing on MM cells and our study will lay the groundwork for development of novel targeted therapeutic strategies in such a tumor. Overall the design of proposal maximizes both translational potential and the likelihood of high-yield discovery with a tremendous potential for high-impact advances also for other hematologic malignancies.

Scientific disciplinary sector: MED/15 MALATTIE DEL SANGUE

Place: Dipartimento di Medicina Interna e Specialità Mediche (DIMI)

Required degree:
Laurea Magistrale della classe LM-9 Biotecnologie mediche, veterinarie e farmaceutiche

Subjects of the interview:
Genomic landscape and biology of Multiple Myeloma. Basic molecular biology techniques knowledge including DNA sequencing, mRNA extraction, reverse transcription to cDNA, Real-Time Quantitative PCR (RTQ-PCR) and other laboratory techniques.

The candidate will need to prove his/her knowledge of English language.

RESEARCH PROGRAM NO. 23

The assessment criteria for the qualifications and the interview will be affixed on **27.6.2019** at **11.00** in Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-Infantili (DINOGMI), Clinica Neurologica, Largo Daneo 3, Genova

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **27.6.2019** at **14.30** in Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-Infantili (DINOGMI), Clinica Neurologica, Largo Daneo 3, Genova

The interview will be held on **27.6.2019** at **16.30** in biblioteca Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-Infantili (DINOGMI), Largo Daneo 3, Genova

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof. Matteo PARDINI

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: Cognitive and neuroimaging correlates of nigrostriatal deficits in neurodegenerative conditions

Description: The nigrostriatal pathway plays a key role in the clinical presentation of different neurodegenerative conditions including Parkinson's Disease (PD), atypical parkinsonisms and other conditions such as those included in the fronto-temporal dementia spectrum. Here, we will combine molecular imaging, MRI techniques and formal neuropsychological evaluations to explore the relationship between markers of dopaminergic fibers loss and cognitive performances. All analyses will be performed using a trans-diagnostic paradigm across different neurodegenerative conditions, focusing on data collected in our Department as well as datasets based on international collaborations.

Scientific disciplinary sector: MED/26 NEUROLOGIA

Place: Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-Infantili (DINOGMI)

Required degree:
Laurea Magistrale della classe LM-51 Psicologia

Subjects of the interview: Neuroanatomy of the diffuse projections systems of the brain. The role of mono-aminergic systems in neurodegenerative conditions and on cognitive functions. Neuroimaging approaches to evaluate the diffuse projection systems of the brain. Neuropsychology of neurodegenerative conditions.

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 24

The assessment criteria for the qualifications and the interview will be affixed on **2.7.2019** at **8.30** in Dipartimento di Scienze della salute (DISSAL) Via Pastore 1, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **2.7.2019** at **11.30** in Dipartimento di Scienze della salute (DISSAL) Via Pastore 1, Genova.

The interview will be held on **2.7.2019** at **12.30** in Dipartimento di Scienze della salute (DISSAL) Via Pastore 1, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof. Giancarlo ICARDI

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 27.133,00

Title: The evolution of vaccination and Global Health: freedom of choice, duty of solidarity and Vaccine Hesitancy.

Description: Vaccinations, among the greatest medical and scientific achievements of the modern era, have eliminated relevant diseases and nowadays they prevent severe diseases that they had in the past, high morbidity and mortality rates. They are one of the most effective health actions of the 20th century for world population. Vaccinations have become more important in recent years and they are the main issue for health protection. In recent times in the scientific community and for the new Italian law in progress, they are an important public health issue to be developed in: epidemiology population health, prevention, hygiene, law and ethics, in Italy and in other countries.

Scientific disciplinary sector: MED/42 IGIENE GENERALE E APPLICATA

Place: Dipartimento di Scienze della Salute (DISSAL)

Required degree:
Dottorato di ricerca in Scienze della Salute. Curriculum: Epidemiologia Prevenzione Vaccinale.

Subjects of the interview: Epidemiology, vaccination prevention, health law, public health, compulsory vaccination and recommended, Objection of vaccination.

RESEARCH PROGRAM NO. 25

The assessment criteria for the qualifications and the interview will be affixed on **26.7.2019** at **8.45** in Palazzina Marchi del Campus di Savona, Via A. Magliotto 2, Savona.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **26.6.2019** at **13.00** in Palazzina Marchi del Campus di Savona, Via A. Magliotto 2, Savona.

The interview will be held on **26.6.2019** at **14.00** in Palazzina Marchi del Campus di Savona, Via A. Magliotto 2, Savona.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

As regards candidates, who are not resident or domiciled in Italy, and those, who are resident or habitually domiciled at a distance of more than 300 Km from the selection centre, the interview, if requested, can also be held by electronic means (SKYPE video conference call) promptly contacting Prof. Luca Ferraris on the phone number +39 019230271 o via the e-mail address: info@cimafoundation.org

Scientific coordinator: Prof. Luca FERRARIS

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: Development of advanced tools for hydrological and hydraulic modeling in sub-Saharan African countries

Description: Climate change is a serious threat to economic growth, livelihoods and the safety of countries and populations. The African continent is particularly vulnerable to the effects of climate change due to its still limited capacity for adaptation made more acute by conditions of poverty and instability. In order for governments, with the help of international institutions, to develop adequate adaptation plans, it is necessary to know and assess the impact of climate change on the hydrological cycle, in particular on the availability of water resources and on extreme events. The aim of the research is to develop hydrological and hydraulic modeling tools able to quantify, in statistical terms, the impact of flood and drought events in the future climate.

Scientific disciplinary sector: ICAR/02 COSTRUZIONI IDRAULICHE E MARITTIME E IDROLOGIA

Place: Centro Internazionale in Monitoraggio Ambientale Fondazione CIMA

Required degree:
Laurea V.O. in Ingegneria civile, Ingegneria per l'ambiente e il Territorio, Laurea Specialistica delle classi 28/S Ingegneria civile, 38/S Ingegneria per l'ambiente e il territorio, Laurea Magistrale delle classi LM-23 Ingegneria civile, LM-24 Ingegneria dei sistemi edilizi, LM-26 Ingegneria della sicurezza, LM-35 Ingegneria per l'ambiente e il Territorio.

Subjects of the interview:
Hydrology, climate change, distributed hydrological modelling, hydraulic modelling.

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 26

Scientific coordinator: Prof. Luca G. LANZA

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: Calibration and accuracy of non-catching instruments to measure liquid/solid atmospheric precipitation – INCIPIT project

Description: Non-catching type precipitation gauges have a number of advantages over more common catching-type gauges, especially for Automatic Weather Stations, and are increasingly adopted in operational networks. The main objectives are: to develop standard and repeatable calibration methods for non-catching instruments measuring liquid precipitation and to understand and evaluate uncertainty components and influence parameters. The project will introduce metrological soundness. The working principles of these instruments will be studied and analysed in order to determine the model function of these instruments and to establish the measurement uncertainty budget with the identification of the influence parameters. The wind effect will be studied by Computational Fluid Dynamics simulations.

Scientific disciplinary sector: ICAR/02 COSTRUZIONI IDRAULICHE E MARITTIME E IDROLOGIA

Place: Dipartimento di Ingegneria civile, chimica e ambientale (DICCA)

Required degree:
Laurea Magistrale della classe LM-35 Ingegneria per l'ambiente e il Territorio.

Subjects of the interview:
Non-catching type precipitation gauges have a number of advantages over more common catching-type gauges, especially for Automatic Weather Stations, and are increasingly adopted in operational networks. The main objectives are: to develop standard and repeatable calibration methods for non-catching instruments measuring liquid precipitation and to understand and evaluate uncertainty components and influence parameters. The project will introduce metrological soundness. The working principles of these instruments will be studied and analysed in order to determine the model function of these instruments and to establish the measurement uncertainty budget with the identification of the influence parameters. The wind effect will be studied by Computational Fluid Dynamics simulations.

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 27

The assessment criteria for the qualifications and the interview will be affixed on **26.6.2019** at **10.00** in Dipartimento Architettura e Design (DAD), Stradone S. Agostino 37, Genova

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **26.6.2019** at **14.00** in Dipartimento Architettura e Design (DAD), Stradone S. Agostino 37, Genova

The interview will be held on **26.6.2019** at **16.00** in Dipartimento Architettura e Design (DAD), Stradone S. Agostino 37, Genova

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof. Adriano MAGLIOCCO

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: Strategies for controlling the environmental performance of resilient anthropic space

Description: The prediction of building environmental performances (during production and operation) is based on requirements that use standard conditions in order to allow regulatory control, beyond the particularities of individual cases. A performance approach, now more easily pursued with simulation software, allows taking into consideration the uniqueness of a building (for microclimatic conditions, physical context, procedural context, etc.). The research aims to investigate aspects of the possible progressive transition from normative-regulatory indications of object / design prescription to indications for obtaining environmental performance (impact, comfort, etc.) considering the peculiar characteristics of the building and site where this arises.

Scientific disciplinary sector: ICAR/12 TECNOLOGIA DELL'ARCHITETTURA

Place: Dipartimento Architettura e Design (DAD)

Required degree:
Dottorato di ricerca in Architettura.

Subjects of the interview:
Environmental sustainability Concept, Resilience in architecture concept, Strategies for natural climate control, nZEB design

RESEARCH PROGRAM NO. 28

The assessment criteria for the qualifications and the interview will be affixed on **26.6.2019** at **9.00** in sala Riunioni della sezione MASET del Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti (DIME), Via Montallegro 1, Genova

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **26.6.2019** at **12.00** in sala Riunioni della sezione MASET del Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti (DIME), Via Montallegro 1, Genova

The interview will be held on **26.6.2019** at **13.00** in sala Riunioni della sezione MASET del Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti (DIME), Via Montallegro 1, Genova

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof. Pietro ZUNINO

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: Energy requirements analysis and design of infrastructures for LNG bunkering for Italian and French harbours in the framework of the European Project INTERREG Maritime ITA-FRA (TDI RETE-GNL).

Description: The research activity is part of the INTERREG Project "Tecnologie e Dimensionamento di Impianti per la RETE di distribuzione primaria di GNL nei porti dell'area transfrontaliera". The objective is the study and the design of the infrastructures and components for the bunkering of liquefied natural gas (LNG), with reference to the ports of the The energy requirements in the port area will be evaluated, considering the employment of cogenerative or trigenerative plants fueled with LNG, and considering the economic and environmental profiles. The plant characteristics and the plant components will be determined to meet the energy requirements from both electrical and thermal energy production point of view, with emphasis on the design and sizing of the plant components.

Scientific disciplinary sector: ING-IND/08 MACCHINE A FLUIDO

Place: Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti (DIME)

Required degree:
Laurea Specialistica della classe 36/S Ingegneria Meccanica; Laurea Magistrale della classe LM-33 Ingegneria Meccanica – Energia e Aeronautica.

Subjects of the interview:
- Technologies for the bunkering of liquefied natural gas (LNG) in the port area.
- Design criteria of LNG bunkering systems and components (dynamic components, combustion chamber, heat exchangers, storage and feeding systems).
- Study of port energy needs considering jointly technical-engineering, economic-financial and environmental sustainability profiles.
- Examination of energy requirements for energy production in the port area through cogenerative or trigenerative plants fueled with LNG.
- System for energy conversion by means of turbugas feeded by LNG.
- Post processing of big data for the evaluation of the overall performance of complex systems.

The candidate will need to prove his/her knowledge of the English language.

PROGRAMMA DI RICERCA N. 29

The assessment criteria for the qualifications and the interview will be affixed: on **30.7.2019** at **10:30** in Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni (DITEN), Via Opera Pia 11A, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed: on **30.7.2019** at **13:30** presso il Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni (DITEN), Via Opera Pia 11A, Genova.

The interview will be held: on **30.7.2019** at **14:00** presso il Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni (DITEN), Via Opera Pia 11A, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof. Paolo GASTALDO

N. 1 assegno - Durata anni 1 – Importo lordo annuo: € 19.367,00

Title: Design of low-power embedded systems for nonlinear signal processing

Description: The research activity aims at developing novel solutions in the area of intelligent electronic systems for nonlinear signal processing. The main topic is the implementation of predictive systems based on machine learning paradigms. Such paradigms prove very powerful in terms of generalization ability. Nonetheless, computational complexity may represent an issue if the goal is to implement the predictor on low-power embedded systems (e.g., robots, drones, wearables, etc.). The research activity will focus on random networks, which in principle can provide a suitable trade-off between generalization ability and computational cost. Accordingly, the goal will be the development of digital architectures that can support such predictors in applications characterized by severe constraints in terms of power consumption and area utilization.

Scientific disciplinary sector: ING-INF/01 ELETTRONICA

Place: Dipartimento di Ingegneria navale, elettrica, elettronica e delle telecomunicazioni (DITEN)

Required degree:
Dottorato di Ricerca in Ingegneria Elettronica o Ingegneria Elettrica

Subjects of the interview:
Embedded systems; hardware description languages (HDL), machine learning; random networks, nonlinear signal processing

PROGRAMMA DI RICERCA N. 30

The assessment criteria for the qualifications and the interview will be affixed: on **2.7.2019** at **10:00** in Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni (DITEN), Via Opera Pia 11A, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed: on **2.7.2019** at **13:00** in Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni (DITEN), Via Opera Pia 11A, Genova.

The interview will be held: on **2.7.2019** at **16:00** in Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni (DITEN), Via Opera Pia 11A, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof. Andrea RANDAZZO

N. 1 assegno - Durata anni 1 – Importo lordo annuo: € 19.367,00

Title: Analysis and processing of microwave sensor data

Description: The present project is aimed at the analysis of the signal acquired by microwave sensors and at the development of methods for extracting the targets' information from the electromagnetic field measurements. The considered applications are related to security (traffic analysis), environmental monitoring, and RFID tags identification. In particular, both radar methods and innovative algorithms based on inverse scattering and machine learning will be considered. The project to be developed includes a first phase of study of the state of the art, followed by the definition of the optimal solutions for the problem under consideration. Finally, the implementation of the most promising methods and the validation of the results is envisaged.

Scientific disciplinary sector: ING-INF/02 CAMPI ELETTROMAGNETICI

Place: Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni (DITEN)

Required degree:
Dottorato di ricerca in Scienze e Tecnologie per l'Ingegneria Elettronica e delle Telecomunicazioni.

Subjects of the interview:
Analysis and processing of electromagnetic field measurements deriving from microwave sensors

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 31

The assessment criteria for the qualifications and the interview will be affixed on **22.7.2019** at **9.00** in Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni (DITEN), Via all'Opera Pia 11, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **22.7.2019** at **13.00** in Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni (DITEN), Via all'Opera Pia 11, Genova.

The interview will be held on **22.7.2019** at **17.00** in Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni (DITEN), Via all'Opera Pia 11, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

As regards candidates, who are not resident or domiciled in Italy, and those, who are resident or habitually domiciled at a distance of more than 300 Km from the selection centre, the interview, if requested, can also be held by electronic means (SKYPE video conference call) promptly contacting Prof. Marco Massimo Fato on the phone number +39 0103532792 or via the email address: carlo.regazzoni@unige.it

Scientific coordinator: Prof. Carlo REGAZZONI

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 23.250,00

Title: Object interactions analysis in dynamic environments

Description: Nowadays, the increased demand of security is a particularly relevant need of our society. Therefore, systems able to automatically interpret interactions, both among people and between people and the environment, represent an actual domain of research, which still lack efficient solutions and open problems. The crowd phenomenon has recently increasingly attracted the attention of worldwide researchers. Different implications related to crowd behavior analysis can be considered, since both technical and social aspect is still under researchers' investigation. The main objective of the research activity is to study and develop novel signal processing techniques for automatic modeling and classification of moving objects interactions.

Scientific disciplinary sector: ING-INF/03 TELECOMUNICAZIONI

Place: Dipartimento di Ingegneria Navale, Elettrica, Elettronica e delle Telecomunicazioni (DITEN)

Required degree:
Laurea V.O. in Ingegneria informatica, Ingegneria elettronica, Ingegneria biomedica, Ingegneria delle telecomunicazioni, Informatica, Fisica, Scienze dell'informazione; Laurea Specialistica delle classi 20/S Fisica, 23/S Informatica, 26/S Ingegneria biomedica, 29/S Ingegneria dell'automazione, 30/S Ingegneria delle telecomunicazioni, 32/S Ingegneria elettronica, 35/S Ingegneria informatica, 100/S Tecniche e metodi per la società dell'informazione; Laurea Magistrale delle classi LM-17 Fisica, LM-18 Informatica, LM-21 Ingegneria biomedica, LM-25 Ingegneria dell'automazione, LM-26 Ingegneria della sicurezza, LM-27 Ingegneria delle telecomunicazioni, LM-28 Ingegneria elettrica, LM-29 Ingegneria elettronica, LM-32 Ingegneria informatica, LM-91 Tecniche e metodi per la società dell'informazione, LM-66 Sicurezza informatica.

Subjects of the interview:
Signal processing techniques, Telecommunication systems, Artificial intelligence, C++ programming language.

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 32

The assessment criteria for the qualifications and the interview will be affixed on **25.6.2019** at **12.00** in Dipartimento interscuola di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS), Viale Causa 13, Genova

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **26.6.2019** at **11.00** in Dipartimento interscuola di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS), Viale Causa 13, Genova

The interview will be held on **26.6.2019** at **11.30** in Dipartimento interscuola di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS), Viale Causa 13, Genova

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof. Armando TACCHELLA

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 23.250,00

Title: Methodologies for analyzing the resiliency in control systems for critical infrastructure

Description: The goal of the research is to quantify the resiliency in control systems for critical infrastructure when they are under cyberattack. The working hypothesis is that the system is attacked by changing (1) set points, (2) regulation parameters and/or (3) sensor feedback. The main objective is to define methodologies to quantify the ability of the system to resume its normal working conditions autonomously. Such methodologies foresee a combination of simulation and automated verification techniques based on plant models. Systems whose incorrect behavior has important social or economic consequences are considered, e.g., water-treatment plants and energy production and distribution systems.

Scientific disciplinary sector: ING-INF/05 SISTEMI DI ELABORAZIONE DELLE INFORMAZIONI

Place: Dipartimento interscuola di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS)

Required degree:
Laurea Magistrale delle classi in LM-21 Ingegneria biomedica, LM-25 Ingegneria dell'automazione, LM-27 Ingegneria delle telecomunicazioni, LM-28 Ingegneria elettrica, LM-29 Ingegneria elettronica, LM-31 Ingegneria Gestionale, LM-32 Ingegneria informatica.

Subjects of the interview:
Modeling and management of industrial systems, industrial automation systems, cybersecurity in the context of industrial automation.

RESEARCH PROGRAM NO. 33

Scientific coordinator: Prof. Silvio SABATINI

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: Effect of action in Visual and Visuo-haptic perception

Description: Experiencing the sensory feedback (visual and proprioceptive) gained from movements allows us to learn the contingencies between action and sensory events. The proposed research aims at investigating the interplay between action and perception at different levels, ranging from (1) modelling early action-perception transfer in visual feature extraction (cf. neural coding of visual properties) and perceptual judgement processes (cf. decoding stages), to (2) experiments on bidirectional perceptual-action influence - including the development of systems and devices that integrate vision and haptics - up to (3) applications of such adaptation and learning paradigms in neuromotor and cognitive rehabilitation.

Scientific disciplinary sector: ING-INF/06 BIOINGEGNERIA ELETTRONICA E INFORMATICA

Place: Dipartimento interscuola di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS)

Required degree:
Laurea V.O. in Ingegneria medica; Laurea Specialistica della classe 26/S Ingegneria Biomedica; Laurea Magistrale della classe LM 21 – Ingegneria Biomedica

Subjects of the interview:
Perceptual systems. Motor control. Bayesian methods in perceptual inference. Psychophysics foundations. MATLAB programming.

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 34

The assessment criteria for the qualifications and the interview will be affixed on **25.6.2019** at **15.00** in Dipartimento di Antichità, Filosofia e Storia (DAFIST) Sez. Ellenica, Via Balbi 4 piano terra, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **26.6.2019** at **17.00** in Dipartimento di Antichità, Filosofia e Storia (DAFIST) Sez. Ellenica, Via Balbi 4 piano terra, Genova.

The interview will be held on **27.6.2019** at **10.00** in Dipartimento di Antichità, Filosofia e Storia (DAFIST) Sez. Ellenica, Via Balbi 4 piano terra, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof. Franco MONTANARI

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: Research on music technical vocabulary for the database "Words in progress. Supplementary Lexicon of Ancient Greek"

Description: Within the lexicographic research project called "Words in progress. Supplementary Lexicon of Ancient Greek"(http://www.aristarchus.unige.net/Wordsinprogress/it-IT/Home), which aims to represent an ongoing supplement to the main existing dictionaries of ancient and Byzantine Greek, the research will focus on the technical lexicon of music, with the aim of identifying new terms or adding new technical meanings (and related attestations) of terms already recorded with extensive meanings, with particular attention to the language of ancient Greek music theory and the vocabulary used for the description of sound, instruments and melody in its constituent components (harmonies, tones, intervals, tetrachordal and scalar systems).

Scientific disciplinary sector: L-FIL-LET/02 LINGUA E LETTERATURA GRECA

Place: Dipartimento di Antichità, Filosofia e Storia (DAFIST)

Required degree:
Dottorato di ricerca in Filologia classica

Subjects of the interview:
Knowledge of language, literature and history of the ancient Greek world. Fundamentals of classical philology and knowledge of working tools for linguistic and philological research, also linked to sectorial languages. Basic knowledge of lexicographic production on ancient Greek from antiquity to the present. Experience in using the web and websites and the most common applications for text and database processing. Knowledge of the technical field of ancient Greek music theory.

RESEARCH PROGRAM NO. 35

The assessment criteria for the qualifications and the interview will be affixed on **3.7.2019** at **9.00** in Dipartimento di Lingue e Culture Moderne, Piazza Santa Sabina 2 Studio III.12, 5 piano, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **3.7.2019** at **12.00** in Dipartimento di Lingue e Culture Moderne, Piazza Santa Sabina 2 Studio III.12, 5 piano, Genova.

The interview will be held on **3.7.2019** at **15.00** in Dipartimento di Lingue e Culture Moderne, Piazza Santa Sabina 2 Studio III.12, 5 piano, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof.ssa Chiara FEDRIANI

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: The Lexicon of Embodied Experience in Latin

Description:
This project envisages the analysis of embodiment in the linguistic encoding of experiential metaphors in Latin. The analysis will be corpus based and carried out from both a synchronic and diachronic perspective. The post-doc fellow will be involved in the creation of a specific tagset designed to annotate embodied metaphors documented in the history of Latin, in the annotation process, and in the construction of a lexical database, which will be freely available online. The applicant has to have a very good knowledge of Latin and an expertise in historical linguistics and in the annotation of linguistic corpora.

Scientific disciplinary sector: L-LIN/01 GLOTTOLOGIA E LINGUISTICA

Place: Dipartimento di Lingue e Culture Moderne

Required degree:
Dottorato di ricerca in Linguistica

Subjects of the interview:
Topics in Cognitive Linguistics and their possible applications in Historical Linguistics, with special reference to the theory of Conceptual Metaphor and its relevance to the semantics of Latin.

RESEARCH PROGRAM NO. 36

The assessment criteria for the qualifications and the interview will be affixed on **1.7.2019** at **10.00** in Dipartimento di Giurisprudenza, Biblioteca Diritto commerciale e dell'economia Via Balbi 22, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **1.7.2019** at **14.15** in Dipartimento di Giurisprudenza, Biblioteca Diritto commerciale e dell'economia Via Balbi 22, Genova.

The interview will be held on **1.7.2019** at **14.30** in Dipartimento di Giurisprudenza, Biblioteca Diritto commerciale e dell'economia Via Balbi 22, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof. Michele SIRI

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: The EU action plan. On sustainable finance and investor protection

Description:
The proposal is part of the Jean Monnet EuFIMAR mar Chair's programme of activities to develop a research line on the most recent evolution of the discipline at the European level. In fact, in March this year, the European Commission launched its action plan on sustainable finance. In the framework of the Jean Monnet EuFIMAR Chair on investor protection in the European legal system, the assignee will be responsible for analysing changes and additions to directives, regulations and other regulatory sources of the European legal system that have been proposed to redirect financial, insurance and pension products towards sustainability in order to assess their consistency with the objective of investor protection in the European market.

Scientific disciplinary sector: IUS/04 DIRITTO COMMERCIALE

Place: Dipartimento di Giurisprudenza

Required degree:
Dottorato di ricerca in Diritto

Subjects of the interview:
Financial market law, insurance law, European legislation on investor and policyholder protection; sustainability

The candidate will need to prove his/her knowledge of the English language.

RESEARCH PROGRAM NO. 37

The assessment criteria for the qualifications and the interview will be affixed on **1.7.2019** at **10.00** in Dipartimento di Giurisprudenza, ex Sezione di Diritto internazionale e della navigazione Via Balbi 22 piano terzo, scala B (interno 7 B), Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **1.7.2019** at **13.00** in Dipartimento di Giurisprudenza, ex Sezione di Diritto internazionale e della navigazione Via Balbi 22 piano terzo, scala B (interno 7 B), Genova.

The interview will be held on **1.7.2019** at **14.00** in Dipartimento di Giurisprudenza, ex Sezione di Diritto internazionale e della navigazione Via Balbi 22 piano terzo, scala B (interno 7 B), Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

As regards candidates, who are not resident or domiciled in Italy, and those, who are resident or habitually domiciled at a distance of more than 300 Km from the selection centre, the interview, if requested, can also be held by electronic means (SKYPE video conference call) promptly contacting Prof. Lorenzo Schiano di Pepe via the email address: lorenzo.schianodipepe@unige.it

Scientific coordinator: Prof. Lorenzo SCHIANO DI PEPE

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: "LEG ART CHIP (Legal Implications for an Art and Cultural Heritage International Platform)"

Description:
Research context: law (including EU and international) applicable to cultural heritage assets and the relevant multimedia contents from the standpoint of their distribution and publication also through augmented and virtual reality.
Research questions: non-material data rights, including interferences between intellectual property law and regimes applicable to the ownership and circulation of data (also) of personal nature; European rules on the protection of cultural assets with specific regard to the reuse of information in the public sector.
Tasks: research in the above field, also in collaboration with others, participation to a scientific dissemination event and production of one or more scientific outputs (essays or chapters in collective works).

Scientific disciplinary sector: IUS/14 DIRITTO DELL'UNIONE EUROPEA

Place: Dipartimento di Giurisprudenza

Required degree:
Dottorato di ricerca in Diritto, Scienze giuridiche, con specializzazione nel diritto della proprietà intellettuale anche in prospettiva europea e internazionale.

Subjects of the interview:
Evolutionary trends and current themes in intellectual property law and interferences with data-related rights also in a European and international perspective.
Application of intellectual property law institutes to cultural heritage assets also in a European and international perspective.

The candidate will need to prove his/her knowledge of the English language.

SCIENTIFIC DISCIPLINARY AREA ECONOMICS AND STATISTICS

RESEARCH PROGRAM NO. 38

Scientific coordinator: Prof.ssa Paola RAMASSA

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: Analysis of earnings quality and earnings management in Europe

Description:
The research project is aimed at carrying out an empirical analysis of earnings quality and earnings management by applying the main models used internationally to measure these financial reporting attributes. To this end, the researcher will have to make an extensive review of the literature to select the methods to be adopted in the analysis. These models will be applied on a dataset including all the population of European listed companies, which must be created with the final aim of assessing the annual report quality and the earnings properties.

Scientific disciplinary sector: SECS-P/07 ECONOMIA AZIENDALE

Place: Dipartimento di Economia (DIEC)

Required degree:
Dottorato di ricerca in Economia Aziendale

Subjects of the interview:
Earnings quality; earnings management; financial reporting

RESEARCH PROGRAM NO. 39

The assessment criteria for the qualifications and the interview will be affixed on **2.7.2019** at **9.00** in Dipartimento di Economia (DIEC), Via Vivaldi 5, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on **2.7.2019** at **12.30** in Dipartimento di Economia (DIEC), Via Vivaldi 5, Genova.

The interview will be held on **2.7.2019** at **14.30** in Dipartimento di Economia (DIEC), Via Vivaldi 5, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

Scientific coordinator: Prof.ssa Nicoletta BURATTI

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: Community enterprise as a tool for local territorial development

Description:
Community entrepreneurship, in its various shapes, represents a form of social innovation based on participation and self-propelled development. In this way, it is a particularly promising tool for the regeneration of marginalised rural and urban areas.
The research, based on the analysis of existing experiences in various European contexts, aims to investigate its potential in terms of contribution to local development, with particular reference to the creation of job opportunities, the implementation of public services, cohesion and social inclusion. The survey of the main strengths and weaknesses also aims to define the most appropriate tools for its promotion and spread.

Scientific disciplinary sector: SECS-P/08 ECONOMIA E GESTIONE DELLE IMPRESE

Place: Dipartimento di Economia (DIEC)

Required degree:
Dottorato di ricerca in Economia applicata e metodologie quantitative

Subjects of the interview:
Social economy and social innovation; local territorial development, community – based enterprise

RESEARCH PROGRAM NO. 40

Scientific coordinator: Prof.ssa Chiara BENEVOLO

NO. 1 research fellowship - Duration 1 year – Annual pre-tax amount: € 19.367,00

Title: A strategic analysis of the Italian tourist ports industry and its development perspectives in the international competitive environment

Description:
The project aims to analyse the Italian tourist port industry, to assess its development perspectives in the increasingly difficult international competitive environment.
The research takes on a dual perspective. From the supply point of view, the business models, the dominant strategic orientations, the marketing policies and the ownership structures of the marinas will be investigated. From the demand point of view, an analysis will be proposed of the characteristics of boaters using the services of marinas. The segment structure of the market will also be analysed in order to support marina managers in their strategic marketing choices.

Scientific disciplinary sector: SECS-P/08 ECONOMIA E GESTIONE DELLE IMPRESE

Place: Dipartimento di Economia (DIEC)

Required degree:
Laurea V.O. in Economia e commercio, Economia aziendale; Laurea Specialistica della classe 84/S Scienze economico-aziendali, della classe 55/S Progettazione e gestione dei sistemi turistici; Laurea Magistrale della classe LM-77 Scienze economico-aziendali, della classe LM-49 Progettazione e gestione dei sistemi turistici.

Subjects of the interview:
Management and marketing of tourism firms; marine and nautical tourism; strategic and market analysis.

The candidate will need to prove his/her knowledge of the English language.