#### del Presidente/Direttore 1723/2024 - Prot. n. 0031413 del 09/02/2024 - [UOR: DP058523 - Class Finanziato dall'Unione europea NextGenerationEU Ministero dell'Università e della Ricerca Italiadomani DVINENZA D'ALLERIA

#### Updated on 11 May 2020 according to the Regulations for the awarding of research grants D.R. n.550 of 14 May 2020 BANDO TOTALE CARICO

# THE DIRECTOR

- HAVING REGARD TO the Law n. 240 of 30 December 2010, art. 22 and subsequent amendments and additions;
- HAVING REGARD TO the Piano Nazionale di Ripresa e Resilienza PNRR;
- HAVING REGARD TO the Decree-Law n. 192 of 31 December 2014, converted into Law n. 11 of 27 February 2015;
- HAVING REGARD TO the Law n. 476 of 13 August 1984 and subsequent amendments;
- HAVING REGARD TO the Law n. 335 of 8 August 1995 and subsequent amendments;
- HAVING REGARD TO the Law n. 127 of 15 May 1997 and subsequent amendments;
- HAVING REGARD TO the D.P.R. n. 445 of 28 December 2000;
- HAVING REGARD TO the Law n. 241 of 7 August 1990 and subsequent amendments;
- HAVING REGARD TO the Statute of the University of Florence;
- HAVING REGARD TO the current University Regulations for the implementation of the Law n. 241/1990 and subsequent amendments and additions, regarding access to administrative documents;
- HAVING REGARD TO the Legislative Decree n. 196 of 30 June 2003, Code on the protection of personal data;
- HAVING REGARD TO the current University Regulations on the protection of personal data;
- IN VIEW of the current Code of Ethics of the University of Florence;
- HAVING REGARD TO the D.R. n. 550 of 14 May 2020 of enactment of the "Regulations for the awarding of research grants" pursuant to art. 22 of the law n. 240 of 30 December 2010;
- HAVING REGARD TO the Decree of the Minister of Education, University and Research n. 102 of 9 March 2011 which establishes the gross annual minimum amount of research grants;
- HAVING REGARD TO the provisions of the art. 47 of the Legislative Decree 31 May 221
   n. 77, converted into law 29 July 2021 n.108 relating to "Equal opportunities, generational and gender, in PNRR and PNC public contracts;
- HAVING REGARD TO the resolutions of the Academic Senate and of the Board of Directors respectively of 29 and 30 April 2020 which establish the maximum annual gross amount of research grants;
- RECALLED the President's decree of 09/04/2020 Ref. n. 56053 (Directory n. 471/2020) containing the Guidelines for carrying out the online competition procedures for research grants and scholarships and research;
- HAVING REGARD TO the MUR Directorial Decree n. 1033 of 17 June 2022 granting the loan in favor of the National Center for Sustainable Mobility CN MOST;
- HAVING REGARD TO the agreement, pursuant to art. 4 of the MUR Directorial Decree n. 3138 of 16-12-2021 for the regulation of relations between HUB and Affiliates relating to the implementation of the research program CN00000023 "Sustainable Mobility Center (National Center for Sustainable Mobility CNMS)", and the implementation of the research activities underlying it , financed by the Directorial Decree granting the loan n.1033 of 17.06.2022 from the resources of the PNRR MUR M4C2 Investment 1.4 "National Centers" Notice D.D. n. 3138 of 16 December 2021, between the "National Center for Sustainable Mobility" Foundation, (C.F. 97924630151) and the University of Florence (C.F. 01279680480);
- HAVING REGARD TO resolution no. 133/2022 of the Council of the Department of Mathematics and Computer Science 'Ulisse Dini' of 20/10/2022 with which the opening of a









new selection for grants financed by the Department for an amount of €23,890.08 on the CN4Spoke 12 project was approved - National Recovery and Resilience Plan, Mission 4 Component 2 - Investment 1.4 - Strengthening research structures and creation of "national R&D champions" on some Key Enabling Technologies - financed by the European Union - NextGenerationEU. -B13C22001000001;

- HAVING REGARD TO the Decree of the Director of the Department of Mathematics and Computer Science 'Ulisse Dini' n. 11861 of 10/25/2022 issuing the call for selection for n. 1 research grant for the scientific area with effect from 1 January 2023;
- HAVING REGARD TO the Director's decree n. 14189/2022, prot. n. 283317 of 07.12.2022, with which the winner of the selection was named;
- HAVING REGARD TO the Decree of the Director of the Department of Mathematics and Computer Science 'Ulisse Dini' Rep. N. 349 Prot. n. 9783 of 01/15/2023 for the renewal, for a further year, of n. 1 research grant in the Scientific Area;
- HAVING NOTED that the winner has renounced the renewal of the research grant, communicated by the Reporting Management and Monitoring Competitive Projects Unit on 06/02/2024 and entered into protocol on 07/02/2024 n. 29575;
- HAVING REGARD TO the communication by Director of the Department of Mathematics and Computer Science 'Ulisse Dini', which approves the reallocation of the Budget of the Fund "CN4 - Sustainable Mobility Center (National Sustainable Mobility Center) - Spoke 9, Project Code CN00000023 - PNRR Mission 4 Component 2 - Investment 1.4, Funded by the European Union - NextGenerationEU - B13C22001000001" to the Department of Statistics, Computer Science, Applications "G. Relatives" adopted with Prot. n. 29575 of 07/02/2024;
- HAVING REGARD TO the TUSS project Scalability, Spoke 9, for which a 3-month extension was requested to extend its validity until 30 June 2024;
- HAVING REGARD TO the need to issue a new call for the assignment of n. 1 research grant for the Scientific Area with effect from 1 April 2024, in compliance with the extension of the Scalability TUSS project;
- CONSIDERING that the new research grant financed by the Department of "Statistics, Informatics, Applications" for an amount of €23,890.08 will be paid entirely by the project PNRR\_CN4\_MS\_Assignments - CN4 - Sustainable Mobility Center (National Sustainable Mobility Center) - Spoke 9, Project Code CN00000023 - PNRR Mission 4 Component 2 -Investment 1.4, Funded by the European Union - NextGenerationEU - B13C22001000001, and will be ratified in the first useful Department Council;
- HAVING REGARD TO the cross priorities provided by the NRRP, as, inter alia, the principle to contribute to the climate and digital transition (known as "tagging"), the principle of gender equality, the obligation to protect and help young people;
- VERIFIED by the Director of the Department the availability of sufficient funds in its budget to cover the amount granted by this Call for Applications.

# DECREES

the issuing of the following:

Call for applications, evaluating qualifications and interview for n. 1 grant in the Area of Area Scientifica for carrying out research activities.

# Art.1

# **Object of the Call**

A selection is called, based on qualifications and interview, for n. 1 grant for carrying out research activities to be performed as indicated below:









ACADEMIC DISCIPLINE	RESEARCH PROGRAMME	CURRICULAR REQUISITES AND ACADEMIC TITLES AS PER ART.3 OF THE REGULATIONS	ADDRESS OF THE UNIT OF AFFILIATION
INF/01	Title of the Research: Graphs and applications Scientific Supervisor: Prof. Andrea Marino	<ul> <li>- LM-91 Techniques and methods for the information society.</li> <li>- LM-32 Computer Engineering</li> <li>- LM-18 Computer Science.</li> <li>- LM- 40 Mathematics</li> <li>- 23/S COMPUTER SCIENCE</li> <li>Master's degree relevant to the research program, or equivalent qualification obtained abroad</li> <li>Scientific-professional CV responding to the requisites</li> </ul>	DISIA Viale Morgagni, 59

The detailed research programme is an integral part of this call.

### Art.2

# Awarding of the grant – Renewal

The selected candidate will be awarded a grant for the amount of  $\notin$  **19.367,00** per year, inclusive of the social security costs payable by the grant holder. The grant will be paid in deferred monthly instalments.

The grant is awarded for the duration of **12** *months* with effect from **01/04/2024** and may possibly be renewed to the same person for a maximum of six years overall, as regulated by art. 22 of Law 240/2010 and subsequent amendments, with the exception of the period in which the grant was received in connection with the research doctorate, within the maximum limit of the legal duration of the PhD programme.

For the purposes of calculating the maximum duration, the periods spent on maternity leave or sick leave are not counted according to the provisions of current legislation.

In the event of renunciation or revocation, the places made available can be assigned to candidates placed in a useful position in the ranking for a period of not less than 12 months and compatibly with the available resources.

The renewal, at the same conditions of the original contract, is decided by the Director of the Department upon request by the Scientific Supervisor. The renewal is subject to the positive evaluation of the activity carried out by the research manager, as well as to the actual budget availability.

# Art.3

# Requisites for admission to the selection

For participation in the selection, the following qualifications and curricular requirements are mandatory:

Requirements:

- LM-91 Techniques and methods for the information society.
- LM-32 Computer Engineering
- LM-18 Computer Science.









- LM- 40 Mathematics
- 23/S COMPUTER SCIENCE

other requirements: Master's degree relevant to the research program, or equivalent qualification obtained abroad.

# The requirements must be met by the deadline of the Call for Applications.

All academic qualifications obtained abroad (degree, doctorate and any other qualifications) must, as a rule, be previously recognized in Italy according to current legislation on the matter. The equivalence of foreign qualifications, if not yet officially recognised, will be evaluated exclusively for the purposes of the admission of the candidate to this selection by the Admissions Board at the time of assessment of academic titles, based on the appropriate documentation (art.4 para.4).

Candidates in possession of an academic qualification obtained abroad, which has not yet been declared equivalent by the Italian authorities, must send the official translation with the "dichiarazione di valore" of the foreign qualification by the competent Italian diplomatic or consular representations in the country of origin, according to the regulations in force on the subject, within thirty days from the decree approving the selection results and in any case within 30 days from the decree approving the selection results and in any case at the time of signing the contract. In case the documents are not received within this period the candidate will be not be eligible to sign the contract.

### Art.4

# Submission of the application and the academic titles

The application for participation in the selection, drawn up in accordance with the facsimile set out in **Annex 1**, must be sent to the Director of the Department of Statistica, Informatica, Applicazioni 'G. Parenti' Viale Morgagni, 59 exclusively via electronic means, according to the following methods:

a) by **certified email (PEC)** to the following address: **disia@pec.unifi.it**. The candidates in turn must have a certified PEC email as well.

b) by email to the following address: disia@disia.unifi.it.

# To fill in the application, it is necessary to use the "Online applications" section: <u>https://stlabtest.dinfo.unifi.it/beta/akademia-candidature/</u>

The generated application must be signed by the candidate and sent, according to one of the methods mentioned above, in PDF format together with a scan of a valid photo ID. Please note: ALL documents must be in PDF format.

The subject line of the email must contain the following: "Application for the grant as announcement D.D. n DA INDICARE of DA INDICARE"

The deadline for submitting the selection application is 23/02/2024 at hour 11:59 PM) under penalty of exclusion for late submissions.

The interview will be held on 12/03/2024 at 03:00 PM On-line.

# The above information constitutes a formal and final convocation for the interview.

In order to be admitted to the interview all candidates must present a valid ID.









The interview will be carried **online** out in accordance with the "Guidelines for the conduct of online competition procedures for research grants and scholarships" (D.R. n. 471/2020 of 09/04/2020 Ref. N.56053).

In the application letter the candidate must indicate the exact denomination of the Call they wish to apply to, indicating the Area and the Research project as per art.1.

They must furthermore declare under their responsibility, as provided for in DPR n. 445/2000, the following:

- name and surname, tax identification number (codice fiscale), date and place of birth; citizenship;
- residence and the address of the domicile chosen for the purposes of the selection (specifying the area code and telephone number) as well as the email address for any communications relating to this notice;
- the degree required, the date, the university and the country where it was obtained;
- that they do not currently have any pending administrative or criminal proceedings and, in case of past criminal or civil convictions, list all charges in detail (the date of the judgment, the judicial authority and the type of judgment, the violated rules, the number of proceedings and the penalties reported);
- that they have been dismissed, released from previous employment with a public administration for persistent insufficient performance and that they have never been discharged from other state employment pursuant to art. 127 letter d) of the Consolidated Law 10 January 1957, n. 3, for having obtained the employment through the production of false documents or formally defective, or not to be prevented from public service following disciplinary dismissal;
- that they are not aware of being subjected to criminal proceedings, or to have ongoing criminal proceedings. In the latter case, indicate the offenses for which the criminal proceedings are underway, the Authority and the status of the proceedings;
- that they enjoy civil and political rights;
- that they are not part of the permanent staff of the universities and other bodies indicated in art. 22, paragraph 1, Law n. 240/2010;
- if they are holders of research grants relating to previous periods carried out pursuant to art. 22 of Law 240/2010;
- that they are aware of the bans on accumulation and incompatibilities provided for in art.12 of this announcement;
- that they will promptly communicate any change of residence or address.

# Art.5

# Documents to be attached to the application

Candidates must attach to the application:

- scan of a valid ID;
- a scientific-professional CV in Italian or in English, using the European template (ANNEX 6). The CV must be signed and completed with all relevant documents and attachments;
- the scientific publications and articles in pdf format;
- a self-certification relating to the academic qualifications held, both those required for participation in the selection and any further qualifications deemed useful for the assessment, with an indication of the institution that issued them and the date it was awarded (Annex 2);









- for the qualification obtained abroad, if already declared equivalent, attach the relevant documentation; otherwise, attach a copy of the foreign qualification with a translation in Italian or English;
- signed and dated list of all attached titles, awards and certificates and any other document mentioned with all necessary information to retrieve them (Annex 3);
- Declaration of acceptance of the online mode for the interview (Annex 5).

In order to allow the subsequent insertion of the data relating to the researcher contract in the MIUR database, the CINECA form (Annex 4) must be <u>completed in full and signed by the candidate</u>, the content of which must coincide with what is indicated in the application.

The data of the successful candidate will also merge into their individual profile inside the MIUR website <u>https://loginmiur.cineca.it</u>, to which the grant holder will have access, once registered.

The Administration cannot be held responsible of the consequences deriving from incorrect indications by the candidate or from any technical/IT issues in submitting the application.

#### Art.6

#### Exclusions

Candidates are excluded from participation in the selection when any of these situations occur:

- the application has been submitted after the deadline set out in art.4;
- the application has been submitted after the deadline set out in art. 4they have not attached the required self-declarations regarding the possession of the admission requirements, or that they have produced false or non-compliant declarations, certifications and/or documentation;

The following candidates are NOT ALLOWED under any circumstances to take part to the selection procedure those who have a relationship of kinship and affinity, up to and including the fourth degree, with academic staff belonging to the Department where they are asked to carry out the Research Project, or with the President, the General Manager or a member of the University's Board of Directors, as required by art. 18, paragraph 1 letter c) of Law n. 240, and in accordance with art. 4, paragraph 2, letter c) of the current Code of Ethics of the University of Florence, or with any of the members of the Selection Board.

The Administration may enforce these exclusion measures at any time in all cases of lack of the required prerequisites.

The Administration will carry out checks on the truthfulness of the content of the substitute declarations.

#### Art.7

#### **Composition of the Admissions Board**

The Admissions Board, nominated following the deadline of the call with a decree from the Director of the Department of Statistica, Informatica, Applicazioni 'G. Parenti', published on the Official Register of the University, it will be composed of three members chosen from tenured professors and researchers belonging to the same scientific area in which the research will be carried out. The Board can be supplemented by a representative of the funding body, if applicable. In any case, the research manager whom the grant holder will collaborate with, will be a member of the Admissions Board.

# Art.8

#### **Evaluation of qualifications and interview**

The Admissions Board will evaluate, for the sole purpose of candidates' admission to the selection, the equivalence of qualifications obtained abroad that have not yet been recognized in Italy according to the legislation in force on the matter.









The Admissions Board will then carry out a comparative evaluation of the candidates by formulating an analytically motivated judgment and identifying the name of the successful candidate. With the same score, the youngest candidate in the ranking precedes.

For the evaluation of the candidates, the Admissions Board will have 100 points, **60** of which to be attributed overall to the candidate's qualifications and scientific professional curriculum and the remaining **40** points to be reserved for the interview.

As part of the selection procedures for the reasons indicated in the introduction, in the event of equal merit between those suitable for each individual procedure, the person of the least represented gender among those who submitted the application will be called.

# The evaluation of qualifications will be carried out before the interview.

The Admissions Board will proceed first thing with the assignment of the overall scores to the evaluable items, the qualifications and the curriculum, as indicated below:

- educational qualifications, additional to the requirements for admission: up to a maximum of **20 points.**
- professional scientific curriculum: up to a maximum of **40 points.**

The Admissions Board establishes the following minimum score that candidates must achieve in the evaluation of qualifications in order to be admitted to the interview: **30** points

The Admissions Board establishes the following minimum score that candidates must achieve in the interview in order to be considered suitable: **20** points

The Admissions Board will not proceed with the evaluation of the qualifications, unless all the elements and data necessary for such evaluation are indicated.

As part of the interview, the Admissions Board will proceed to ascertain, among other aspects, the knowledge of the field subject of the call, the clarity of presentation and the suitability of the candidate to carry out the research called for.

The Admissions Board results will send a report with the final evaluation to the Director of the Department for approval.

The results of the evaluation will be published on the University's Official Register and on the Department's own website www.disia.unifi.it.

The results of the selection will be communicated personally to the selected candidate(s) by the Department. Any complaint against the approval decree must be filed to the Director of the Department within ten days from the date of publication, in accordance with art. 12 the current Regulations for the assignment of research grants.

# Art.9

# Insurance

Research fellows are insured by the University for Civil Liability against Third Parties and for Accidents starting from the beginning of the research activity without charges against them (information on the University website on the http page: <u>http://www.unifi.it/vp-3514-schema-tipo-di-contratto-per-collaborazione-ad-attivita-di-ricerca.html#assicurazioni</u>).









### Art.10

### **Contract and required documents**

The Department will contact the successful candidate in order to sign a contract regulating collaboration in the research activity, after checking the actual availability of the funds.

To such contract must be attached a copy of the insurance policy as per previous article.

The successful candidates must, at the time of signing the contract submit copies of the following documents:

- a valid photo ID;
- tax identification number (codice fiscale);
- resident permit where it is indicated a reason consistent with the research grant (only for non-EU citizens).

Citizens of countries outside of the European Union must be in possession of one of the residence permits provided for by the current immigration legislation in order to sign the contract for research fellowship with the University of Florence. Therefore, it will not be possible to proceed with the stipulation of the contract if the winner is not in possession of a suitable residence permit. If this condition occurs, the aforementioned candidate will be declared lapsed and the contract will be offered to the next suitable candidate in the ranking.

The ascertainment of this condition will be made at the time of signing the contract.

Furthermore, even if the loss of possession of the residence permit occurs after the contract has been signed, such condition will constitute cause for its termination.

In case the candidate holds a foreign title as one of the prerequisites, and then fails to obtain by the competent Italian diplomatic or consular representations in the country of origin, and then submit within 30 days, the required legalisation and declaration of value of such academic title, he or she will be ineligible to sign the contract.

#### Art.11

#### **Intellectual property**

The management of industrial and intellectual property rights deriving from research carried out by university staff is governed by art. 65 of the Industrial Property Code (Legislative Decree n. 30 of 2005 and subsequent amendments) and by the *"Regulation for the management of industrial and intellectual property rights with reference to the research activities carried out by university staff"* issued with D.R. n.82735 (526) of 08/05/2019, which provides that, in the case of bound research, i.e. funded in whole or in part by private entities, or carried out in the context of specific research projects funded by public entities other than University, the industrial property rights that may result belong to the University, which remains the owner of any rights deriving from inventions obtained with the contribution of its researchers, pursuant to art.3 of the aforementioned Regulations. Pursuant to art.1 para. 3 of the Regulations, the grant holder, with the stipulation of the contract, declares to accept the application of the rules indicated therein.

#### Art.12

#### **Prohibition of cumulation – incompatibility**

The grant cannot be combined with scholarships of any kind, except with those awarded by national or foreign institutions for the purpose of integrating training and research activities with stays abroad. Research grants cannot be awarded to permanent staff of universities, institutions and public research and experimentation bodies, the National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA) and Italian Space Agency (ASI), as well as of institutions whose scientific specialization diploma has been recognized as equivalent to the title of research doctor









pursuant to art.74, fourth paragraph, of the decree of the President of the Republic 11 July 1980, n.382.

Employees serving in public administrations or private entities other than those specified in the paragraph above, with full-time, part-time or fixed term contract, are entitled to hold a research grant on the condition that they be placed on leave without pay for the duration of the research project or that their private employment contract is put on hold.

The awarding of the grant is not compatible with participation in degree programmes of any level including specialist or professional master courses, PhD with scholarship or medical specialization, in Italy or abroad.

The holder of the grant cannot be in a relationship of kinship and affinity up to the fourth degree included with any academic belonging to the Department where the research is carried out, or with the President, the General Manager or a member of the University's Board of Directors, as required by art.18, paragraph 1, letter c) of Law n.240/2010, and in accordance with art.4, paragraph 2, letter c) of the current Code of Ethics of the University of Florence as well as with any member of the Admissions Board as per art.6 of this Call.

The research grant holder can carry out self-employed work only after authorization by the Department Council, having heard the motivated opinion of the scientific director of the grant, after verifying that this activity is:

a. compatible with the research activity set out in the grant;

b. not prejudicial to the conduct of research activities;

c. not in conflict of interest with the specific research activity carried out;

also taking into account the reporting rules set forth by the funding body.

# Art.13

# Suspension of the contract

The research activity must be suspended for maternity leave. In this case, the provisions of the decree of the Minister of Labour and Social Security 12 July 2007, published in the Official Journal n.247 of 23 October 2007 will apply.

The period of compulsory suspension for maternity will be recovered at the end of the natural expiry of the contract in accordance with the provisions of current legislation.

The research activity can be suspended for grave illness or for serious family reasons and also in this case, the suspension periods can be recovered at the end of the natural expiry of the contract, subject to agreement with the academic in charge and in compliance with the limits imposed by the funds available.

During the period of compulsory maternity leave, the allowance paid by INPS, or by another social security fund, is integrated up to the full amount of the grant with monies paid by the University

In case of maternity or any other type of leave, reference is made to art.22 paragraph 6 of Law n.240/2010

Concerning sick leave, the law that applies is n.296, art.1, paragraph 788 and subsequent amendments and integrations.

The suspension measure is ruled by a decree from the Director of the Department where the research is conducted.

# Art.14

# **Termination of the contract**

If the researcher does not continue the activity foreseen by the research program without a justified reason or is responsible for serious or repeated shortcomings, at the motivated request of the Research Manager and with the resolution of the Council of the Department, the termination of the contract can be ordered, pursuant to art.1453 et seq. of the civil code.









The termination measure is ruled by a decree from the Director of the Department where the research is conducted.

# Art.15

# Withdrawal by the research grant holder

The grant holder has the right to withdraw from the research programme, giving a notice of at least 15 (fifteen) days addressed to the Director of the Department and to the research project manager. Failure to do so implies the withholding of the amount corresponding to the period of mandatory advance notice.

# Art.16

# **Attending PhD courses**

The research grant holder can attend, as an extra and without the right to any scholarship, PhD courses, provided that he/she passes the required admission tests and, if applicable, pays any fee connected to the courses.

# Art.17

# Tax and social security provisions

The provisions of Art.4 of the Law n.476 of 13 August 1984 and subsequent amendments and additions, apply to research grants regarding tax matters. As far as social security is concerned, the applicable law is n.335 of 8 August 1995, art.2, paragraphs 26 and following and subsequent amendments.

# Art.18

# Personal data processing

Candidates are invited to read the "Information for the processing of personal data of interested parties to participate in personnel recruitment procedures or selection procedures for admission to courses with a limited number or for the awarding of research grants, scholarships, collaborative and/or teaching assignments" available at:

https://www.unifi.it/upload/sub/protezionedati/Informativa\_SELEZIONI.pdf

The application forms and documents produced by the candidates constitute "administrative documents" with respect to which, except in exceptional cases, the need for confidentiality must be excluded. These documents, once acquired by the selection procedure, are no longer considered to be within the personal sphere of the participants who, therefore, do not take on the role of counter parties, in any claim to access the documents of the procedure by another party. In any case, the provisions of the GDPR (EU Regulation 2016/679 of the European Parliament and of the Council of 27 April 2016 published on the OJEU of 04 May 2016), relating to the protection of individuals with regard to the processing of Personal Data and the movement of such data, will be abided to.

# Art.19

# **Procedure manager**

The manager for this selection procedure is Ms Claudia Conti, address Viale Morgagni, 59 - 50134 - Firenze, ph: 055-2751500, e-mail: disia@disia.unifi.it, Certified e-mail (pec): disia@pec.unifi.it.

#### Art. 20

#### **Final provisions and publication**

For all matters not provided for in this announcement, reference is made to the current legislation in force.









The notice will be posted in the University's Official online Register, on: <u>https://www.unifi.it/vp-391-assegni-di-ricerca.html</u>, on the website of the Ministry of Education and Research (MIUR) and on the European Union's Euraxess website.

Florence,

THE DIRECTOR OF THE DEPARTMENT Prof.ssa Carla Rampichini









# RESEARCH GRANT

*Title:* Graphs and applications

Titolo: Grafi e applicazioni

# **DESCRIPTION OF THE RESEARCH ACTIVITY**

**Description:** Research within the field of algorithm design and graph theory for the analysis of large real-world networks, with particular focus on transportation networks. Such networks can be effectively modeled using graphs, representing mobility and points of interest, while neglecting specific uninteresting aspects. Hence, discovering the most important points of interest (centrality), measuring the efficiency of the network (flow), making the network more robust (network design) can be translated into problems on graphs. Adding temporal constraints allows us to better model public transportation networks. For instance, one can use the so-called temporal graphs. There, connections are available only at prescribed times, in the same way as in public transportation systems buses and trains follow a time schedule. In this scenario, paths are valid only if the connections are time consistent, meaning that each connection in the path must arrive before the departure of the next one. The research aims to rethink those classical notions of graph theory with some additional temporal constraint on paths. The design of new graph algorithms will possibly be integrated with implementations and practical experiments on real world transportation networks.

Descrizione: Ricerca nell'ambito teorico e algoritmico per l'analisi di reti del mondo reale di grandi dimensioni, con particolare riferimento alle reti di trasporto. Tali reti possono essere modellate mediante l'ausilio di grafi, rappresentando le vie di comunicazione tra i punti di interesse e astraendo da aspetti specifici particolari. In tale contesto scoprire i punti di interesse più importanti (centrality), misurare l'efficienza della viabilità (flusso), irrobustire la rete (network design) possono essere tradotti in problemi su grafi. L'aggiunta di ulteriori vincoli temporali sugli archi permette una migliore modellizzazione delle reti di trasporto pubblico. Ad esempio, questo può realizzarsi mediante i cosiddetti grafi temporali. Nei grafi temporali le connessioni sono disponibili solo in tempi prestabiliti, nello stesso modo in cui le connessioni di un sistema di trasporto pubblico sono disponibili a orari fissati. In questo contesto i cammini sono validi solo se il tempo di partenza di ogni connessione è compatibile con il tempo di arrivo nel luogo della coincidenza. La ricerca si propone un ripensamento delle classiche nozioni di teoria dei grafi per tenere conto dei vincoli temporali sui cammini. Il design di algoritmi su grafi sarà possibilmente accompagnato da un'implementazione e sperimentazione pratica su grafi di trasporto reali.

> f.to Scientific Supervisor Prof. Andrea Marino

# TEMPLATE OF APPLICATION FORM

To the Director of the Department of Statistica, Informatica, Applicazioni 'G. Parenti' Viale Morgagni, 59 50134 Firenze

I, the undersigned, request to participate in the selection referred to in the announcement issued by the Director's Decree n. ...... of ...... for the award of n. 1 research grant to join the Research Programme: Graphs and applications of the Area Area Scientifica at the Department of Statistica, Informatica, Applicazioni 'G. Parenti'.

Aware that in accordance with articles 75 and 76 of 28/12/00 n.445, in the case of false declarations, false information in the documents or use of false documents, I will incur the penal sanctions referred to and will immediately lose the right to the research grant

#### **I THEREFORE DECLARE**

Pursuant to art.19, 46 and 47 of the D.P.R. n.445/2000:	
Family name First name	
Place of birth (town)(province Date of birth	/state and country)
Permanent address (town)	
(province/state and country street name, n	
Domicile during the research project duration, if different from pe (town)	
(province/state and country	)
street name, n	Zip code
cell. ph Tax ID number (codice fiscale)e	-mail
Nationality	

# I also declare the following

	I hold the foreign university title (specify if undergraduate, post-grad, etc),
	in (specify academic field) at the University
	of
	I hold an Italian post-graduate degree obtained prior to 1999 inat the
	University of Graduation date Final mark
	I hold an Italian post-graduate degree according to D.M. 509/99 Class/S
	inat the University
	of Graduation date Final mark
	I hold an Italian post-graduate degree according to D.M. 270/04 Class LM
-	in
	of Graduation date Final mark
	And not to exceed with this research grant the limit of 6 years total established in Article 6, paragraph 2a
	of Law n. 11/2015;
	I am enrolled in the PhD programme in
	(cycle) at the University of
	Date of commencement Ending on
	( ) with grant ( ) without grant
	I hold a PhD title in at the University
	of OR – the discussion of my
	PhD thesis will be held before the date of the evaluation of the titles by the Admissions Board (specify
_	the expected date of discussion of the thesis)
	I hold a Specialisation title in
	Graduation date at the University of
	I hold a research grant (indicate for each grant the university of affiliation and related period) from/ to/ at
	from/ to/
	from/ to/
	from/ to/
	And not to exceed with this research grant the limit of 6 years total established in Article 6, paragraph 2a
	of Law n. 11/2015;
	I have never received a research grant;
	I hold the following further academic and/or professional qualifications (indicate all the data necessary
	for verification by the structure):
	I do not currently have any pending administrative, criminal or civil proceedings as per current legislation; <i>OR</i>
	I have had past criminal convictions (list all charges with the date of the judgment, the judicial authority
-	and the type of judgment, the violated rules, the number of proceedings and the penalties reported);
	and the type of judgment, the violated rules, the number of proceedings and the penalties reported),
	that I have never been dismissed or released from previous employment with a public administration for
	persistent insufficient performance and that I have never been discharged from other state employment
	pursuant to art.127 letter d) of the Consolidated Law n.3/1957, for having obtained the employment
	through the production of false documents or formally defective; and that I have not been prevented from
	public service following disciplinary dismissal;

 $\Box \quad \text{that I am not aware of being subjected to criminal proceedings;} \\ OR$ 

- □ that I have ongoing criminal proceedings. In such case, indicate the offenses for which the criminal proceedings are underway, the Authority and the status of the proceedings;
- □ that I enjoy full civil and political rights;
- □ that I am not part of the permanent staff of the universities and other bodies indicated in art.22, paragraph 1, Law n.240/2010;
- □ that I am aware of the bans on accumulation and incompatibilities provided for in art.12 of this announcement;
- □ that I will communicate any change of residence or contact details.

I, the undersigned, declare that I am aware of the information for the processing of personal data of subjects willing to participate in selection procedures for staff recruitment, research grant/scholarship awarding or participation in restricted access courses and teaching or collaboration contracts. Such information can be consulted at this page: <a href="https://www.unifi.it/upload/sub/protezionedati/Informativa\_SELEZIONI.pdf">https://www.unifi.it/upload/sub/protezionedati/Informativa\_SELEZIONI.pdf</a>

Date,

Signature

Attach a copy of your ID

### Declaration of affidavit (Dichiarazione sostitutiva di atto di notorietà) Given pursuant to art.19 and 47 of DPR n.445 of 28/12/2000

I, the undersigned	
Place of birth	Date of Birth
Permanent address	

Aware that pursuant to art.75 and 76 of DPR N.445 of 28/12/00, in the event of false declarations or use of false deeds, I will incur the criminal sanctions referred to and will immediately become ineligible for any assignment of the research grant:

# I DECLARE

that all documents attached to the application and listed below are true copies of the originals in my possession:

1)
2)
3)
4)
5)
6)
7)
8)
9)
10)

Date,

Signature

# **LIST OF ATTACHMENTS**

I, the undersigned, (family name and first name) Place of birth (town) (province/state and country Date of birth	
Permanent address (town)	)
Domicile during the research project duration, if different from permanent address: (town)	)

cell. ph.....

# I hereby **ATTACH** to the application the following documents:

1)	••
2)	••
3)	••
4)	••
5)	••
6)	
7)	
8)	
9)	
10)	

Date,

Signature

# **CINECA form for Research Grant Contracts**

(the data provided below must be identical to those submitted in the call for application)

# **PERSONAL and CONTACT DETAILS**

Tax Identification Number (Codice Fiscale) (please write clearly and in block letters)

Family name	First name	
M/FDate of birth (dd/mm/yyyy)/	/Place	of birth (town, province,
country)	Nationalit	У
E-MAIL	CELL. ]	РН
ADDRESSES		
PERMANENT ADDRESS:		
(town)		
(province/state and country)		
(street name)	n	ZIP CODE
DOMICILE: (only if different from permanent address	2	
(town)		
(province/state and country)		
(street name)		
FISCAL DOMICILE: (only if different from perma	nent address)	
(town)		
(province/state and country)		
(street name)		
·		
ACADEMIC TITLES:		
() Foreign title		
( ) Italian Laurea prior to 1999		
( ) Italian Laurea Specialistica DM 509/99		
<ul> <li>( ) Italian Laurea Magistrale DM 270/04.</li> </ul>		
obtained at the University of		
Graduation date		
( ) Specialisation title in		
A.Y/University of ( ) PhD in		

Graduation date	at the University of:					
Cycle	Date commenceme	ent	D	ate en	ding_	
months of duration	on					
Grant NO()	YES ( ) from	<u> </u>	_ to	/	_/	n. months
PROFESSIONAL BO	AKD KEGISI KA I	10N N				
Board's name and add	ress					
CONTRACT DATA						
			· · c P			

Unit of affiliation: Statistica, Informatica, Applicazioni 'G. Parenti' Public call data: Director's Decree n. of Duration (months): 12 Contract's beginning date (dd/mm/yyyy): 01/04/2024 Research Supervisor/Manager: Prof. Andrea Marino Title of the research project: Graphs and applications Academic discipline: INF/01 Further disciplines (*if applicable*)

Date,

Signature

Declaration of acceptance for the evaluation session in distant mode of the selection for the assignment of a research grant as per Decree n. ...... of ........ (art.2 Guidelines for carrying out the online public competition procedures for research grants and scholarships (D.R. of 09/04/2020 Ref. n.56053 (Repertory n.471/2020)

I, the undersigned	
Tax ID number	
Place of birth (country)	()
Date of birth /	
Permanent address	

# DECLARE

- that I accept the distant mode of this procedure;
- that I will not use any help tools;
- that I guarantee the absence of any person in the room that could provide support during the interview;
- I acknowledge and accept that the administration will have no responsibility for IT technical problems, which could occur during the connection for both the candidate and the Admissions Board.

Date:

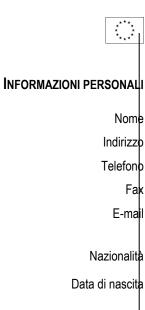
Place:

# Signature of the candidate

("firma digitale" or handwritten, in full and legible. In case of handwritten signature, a copy of the applicant's ID must also be attached"firma digitale" or handwritten, in full and legible. In case of handwritten signature, a copy of the applicant's ID must also be attached)

# ALLEGATO 6

### FORMATO EUROPEO PER IL CURRICULUM VITAE



# [COGNOME, Nome, e, se pertinente, altri nomi ] [Numero civico, strada o piazza, codice postale, città, paese ]

[Giorno, mese, anno]

# ESPERIENZA LAVORATIVA

• Date (da – a)

Nome e indirizzo del datore di lavoro
Tipo di azienda o settore
Tipo di impiego
Principali mansioni e responsabilità

# ISTRUZIONE E FORMAZIONE

• Date (da – a)

 Nome e tipo di istituto di istruzione o formazione
 Principali materie / abilità professionali oggetto dello studio
 Qualifica conseguita
 Livello nella classificazione nazionale (se pertinente) [Iniziare con le informazioni più recenti ed elencare separatamente ciascun impiego pertinente ricoperto.]

[Iniziare con le informazioni più recenti ed elencare separatamente ciascun corso pertinente frequentato con successo.]

<b>C</b> APACITÀ E	COMPETENZE
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PERSONALI
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Acquisite nel corso della vita e della carriera ma non necessariamente riconosciute da certificati e diplomi ufficiali.

MADRELINGUA	[ Indicare la madrelingua ]
ALTRE LINGU/	A
• Capacità di lettura • Capacità di scrittura • Capacità di espressione orale	[ Indicare il livello: eccellente, buono, elementare. ]
CAPACITÀ E COMPETENZE RELAZIONAL Vivere e lavorare con altre persone, ir ambiente multiculturale, occupando post in cui la comunicazione è importante e ir situazioni in cui è essenziale lavorare ir squadra (ad es. cultura e sport), ecc	
CAPACITÀ E COMPETENZE ORGANIZZATIVE Ad es. coordinamento e amministrazione di persone, progetti, bilanci; sul posto d lavoro, in attività di volontariato (ad es cultura e sport), a casa, ecc	
CAPACITÀ E COMPETENZE TECNICHE Con computer, attrezzature specifiche macchinari, ecc	
CAPACITÀ E COMPETENZE ARTISTICHE Musica, scrittura, disegno ecc	
ALTRE CAPACITÀ E COMPETENZE Competenze non precedentement indicate	e
PATENTE O PATENT	1
ULTERIORI INFORMAZION	I [Inserire qui ogni altra informazione pertinente, ad esempio persone di riferimento, referenze ecc.]

Il/la sottoscritto/a \_\_\_\_\_è consapevole che:

-è soggetto/a alle sanzioni previste dal codice penale e dalle leggi speciali in materia qualora rilasci dichiarazioni mendaci, formi o faccia uso di atti falsi od esibisca atti contenenti dati non più rispondenti a verità (articolo 76 del D.P.R. 445/2000);

-decade dai benefici eventualmente conseguenti al provvedimento emanato sulla base della dichiarazione non veritiera qualora dal controllo effettuato dall'Amministrazione emerga la non veridicità del contenuto della dichiarazione (artt. 71 e 75 D.P.R. 28.12.2000, n. 445).

Lì\_\_\_\_\_, data\_\_\_\_\_ Firma, \_\_\_\_\_

II/la sottoscritto/a \_\_\_\_\_\_ autorizzo/a il trattamento dei miei dati personali ai sensi del Decreto Legislativo 30 Giugno 2003 n. 196 e del GDPR (Regolamento UE 2016/679).

Lì \_\_\_\_\_, data\_\_\_\_\_ Firma, \_\_\_\_\_