

Progetto IR00011– EBRAINS-Italy - Missione 4, "Istruzione e Ricerca" - Componente 2, "Dalla ricerca all'impresa" - Linea di investimento 3.1 del PNRR, Azione 3.1.1 "Creazione di nuove IR o potenziamento di quelle esistenti che concorrono agli obiettivi di Eccellenza Scientifica di Horizon Europe e costituzione di reti" - Area ESFRI H&F. Finanziato dall'Unione europea – NextGeneration EU (CUP B51E22000150006)

SELECTION ANNOUNCEMENT No. 2023S13

BY QUALIFICATIONS AND EXAMINATIONS TO RECRUIT NO. 1 LEVEL II RESEARCH TECHNOLOGIST ON A PART-TIME FIXED-TERM CONTRACT (30 HOURS PER WEEK), FOR 30 MONTHS (FINANCIAL POSITION "D3") PURSUANT TO ART. 24BIS OF LAW NO. 240 OF 30.12.2010, AND TO THE NATIONAL COLLECTIVE BARGAINING AGREEMENT OF 19.04.2018, AT THE "PADOVA NEUROSCIENCE" - PNC.

By implementing Art. 24bis of Law no. 240 of 30.12.2010 and the National Collective Bargaining Agreement of 19.04.2018, the University of Padova plans to recruit Level II research technologist by qualifications and examinations on a part-time fixed-term contract (30 hours per week), for 30 months (financial position "D3") at the "Padova Neuroscience Center" - PNC to provide technical-administrative support to the development of scientific research of the PNC, with particular reference to the research project "*EBRAINS-Italy: European Brain ReseArch INfrastructureS-Italy*".

The technologist will then be called to carry out the following **activities**:

- support for imaging data acquisition activities, also in combination with EEG systems;
- multimodal database management including imaging data, electrophysiological signals, cognitive and clinical tests;
- development and maintenance of pipelines for the pre-processing and processing of magnetic resonance images and positron emission tomography;
- training and support to researchers for the use of pipelines for image analysis;
- training and support to researchers for the development of experimental protocols for studies with magnetic resonance scanners.

The aforementioned activities require the following **professional skills, knowledge and competences**:

- excellent knowledge of the main programming languages used in neuroimaging (Matlab, Python, C++, R);
- excellent knowledge, also through experience, of pre-processing methods and analysis of brain images and electrophysiological signals;
- knowledge, also through experience, of multimodal database management;
- knowledge of the main operating systems (Unix, Windows, OS);
- knowledge, also through experience, of designing magnetic resonance studies and of data management;
- knowledge, also through experience, of working in a team of technicians;
- knowledge of the English language (level B2)
- "internal" (teachers, researchers, doctoral students) and "external" user orientation, including international ones
- ability to autonomously organize the work in compliance with set deadlines
- aptitude for teamwork
- problem solving skills.

Admission requirements

Candidates must have the following requirements by the selection announcement deadline:

- **academic qualifications:**

- a first-cycle degree (Laurea Triennale) (ex Ministerial Decree DM 270/04) Laurea ex D.M. n. 270/2004, in class: L-8 Information technology engineering, L-30 Physics, L-31 Computer Science, L-35 Mathematics or a first-cycle degree (Laurea Triennale) (ex Ministerial Decree 509/99) recognised as the equivalent by Interministerial Decree 9.7.2009, in class: 9 Information technology, 25 Physics, 26 Computer Science, 32 Mathematics

or an Italian University Diploma ex D.P.R. n. 162/1982, recognised as the equivalent by Interministerial Decree DI 11/11/2011: Informatica (didattica a distanza)

or an Italian University Diploma (ex Law 341/1990) recognised as the equivalent by Interministerial Decree DI 11.11.2011: Informatica, Ingegneria biomedica, Ingegneria delle telecomunicazioni, Ingegneria elettronica, Ingegneria informatica, Ingegneria informatica e automatica, Metodologie fisiche,

- a second-cycle degree (Laurea Magistrale) (ex DM 270/04) in class: LM-17 Physics, LM-18 Computer science, LM-21 Biomedical engineering, LM-25 Automation engineering, LM-32 Computer systems engineering, LM-40 Mathematics, LM-44 Mathematical modelling for engineering, LM-66 Computer system safety;

or a second-cycle degree (*Laurea Specialistica*) (ex DM 509/99) recognised as the equivalent by Interministerial Decree DI 9.7.2009 in class: 20/S Physics, 23/S Computer Science, 26/S Biomedical engineering, 29/S Automation engineering, 35/S Computer engineering, 45/S Mathematics, 50/S Mathematics and physics: modelling for engineering;

or a degree (*Diploma di Laurea V.O.*) (prior to DM 509/99) recognised as the equivalent by Interministerial Decree DI 9.7.2009 in Astronomia, Informatica, Ingegneria biomedica, Ingegneria elettrica, Ingegneria elettronica, Ingegneria medica, Ingegneria informatica, Scienze dell'informazione, Matematica, Fisica.

Candidates **holding a foreign degree** may take part in the selection only after completing a degree-equivalency process pursuant to Art. 38, paragraph 3 of Legislative Decree DL 165/2001. Candidates are conditionally admitted to the selection procedure if the equivalency process is underway, but no final decision has been reached. They must have had their degree recognised as the equivalent of an Italian degree by the time they are recruited.

The degree-equivalency process must be started before the selection-announcement deadline, otherwise the candidate will be excluded from the selection procedure. Candidates must inform the procedure manager that they have applied for degree equivalency.

Pursuant to decreto-legge (decree-law) no. 228 of 30 December 2021, **the Public Function Department will conclude the recognition procedure only with regard to the successful candidates, who have the obligation, under penalty of forfeiture, to notify the Italian Ministry for Universities and Research (MUR) of the publication of the ranking list within 15 days.**

The degree-equivalency application form is available at:

<http://www.funzionepubblica.gov.it/strumenti-e-controlli/modulistica>

- **specific professional qualification pertinent to the research:**

- documented experience of at least two (2) years of work activity performed in public or private research facilities working in the field of development and optimization of magnetic resonance image acquisition and analysis methods for neuroimaging applications, with particular reference to functional and diffusion MRI techniques

- italian citizenship (Italians who are not citizens of the Republic of Italy have the same rights as Italian nationals), or citizenship of an EU Member State. Following implementation of Art. 7 of Law 97/2013, the following may also apply for the selection procedure: family of citizens from an EU Member State who do not have citizenship of an EU Member State, but do have the right of residence, or the permanent right of residence; and third-country nationals with a long-term EU permit of stay, with refugee status, or with subsidiary protection status;
- candidates with full political rights;
- candidates who are physically suitable for the position;
- candidates who have completed their military service.

Non-Italian nationals are required to:

- have full civil and political rights in their country of origin;
- fulfil the same requirements as Italian nationals, but do not need Italian citizenship;
- have a good knowledge of Italian.

Application form

The application form and appendices for this selection announcement **must be submitted online** with the Pica platform at: <https://pica.cineca.it/unipd/tipologia/pta>.

To apply online, candidates must have a valid email address so that they can register with the system. They must also provide all of the information needed to complete the application and attach the required documents in electronic form.

The system allows the application to be saved in draft form until the submission deadline. The online application procedure and submission must be completed by **2 pm of the 15th day, when the selection announcement closes**.

The system will certify the date that the online application form is submitted by emailing candidates an automatic receipt. Once the submission deadline has expired, the system will shut down access and applications can no longer be sent.

If necessary, a submitted application form can be withdrawn and another one submitted **before the application deadline (2:00 p.m. of the fifteenth day)**.

Each application will be given an identification number which must be included in any correspondence, along with the selection announcement code stated in the online procedure. Candidates must complete each and every part of the application form in accordance with the online instructions. The application is to be completed as follows:

- with a digital signature using a smart card, USB token or remote signature that enables the user to sign documents with signature software. Alternatively, a web portal may be used to provide a certified remote signature. Candidates with a smart card or USB token for digital signing can check for compatibility with the server's digital-signing system. If compatible, the user may sign the application on the server;
- candidates who do not have compatible digital-signing devices and users of remote digital signatures without web portal access for signing documents will have to save a system-generated pdf file on their computer. After which, they must not edit the file and e-sign it in CAdES format. A file with a p7m extension will be generated and uploaded into the system. If the file is edited before the e-signature is applied, the

system will be unable to verify whether the content of this document matches the original. If this occurs, the application will be rejected.

- If none of the aforementioned options are available:
print and hand-sign the application form, then upload **a scanned copy along with a scanned form of identification. Candidates not providing identification may be excluded from the selection procedure.**

The system may be momentarily offline for technical reasons.

Non-Italian candidates are to submit their application form as per the methods and deadlines stated in this application procedure.

Documents must be in a static, non-editable format and must not contain executable codes or macro-instructions. PDF is the preferred format. Documents must not exceed 30 MB.

The University of Padova is not liable for undelivered correspondence should candidates not provide a complete address, or when late or no notification is provided should the address on the application form change. Nor is it liable for problems caused by third parties, misfortune or force majeure.

For additional information or queries about the application procedure, please contact the Technical and Administrative Personnel office on +39 049 827 3159 - 3494 between 9 am and 1 pm.

For technical problems only, contact the following link at home page PICA CINECA [supporto](#) .

Candidates must state under their own responsibility their surname and first name, their date and place of birth, their permanent address, any telephone number, any criminal convictions and pending criminal procedures, that they enjoy full political rights, their military-service status, a detailed statement they meet the aforementioned requirements, and the exact contact address for any correspondence.

Candidates are admitted to the selection procedure conditionally. Should any of the requirements not be met, candidates may be excluded from the selection procedure at any moment, even after they have taken the tests.

Selection

Candidates are selected by qualifications and examinations.

A total of 90 points are awarded for qualifications and examinations. They are divided as follows:

- 30 points for qualifications;
- 60 points for examinations (30 points for written test and 30 points for oral examination).

Qualifications

Candidates will be assessed on the following qualifications:

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| 1) Documented experience as a technician in research laboratories abroad for activities related to the skills required in the call | max 10 points |
| 2) Documented participation in research projects, funded on a competitive basis and of international and national relevance | max 7 points |
| 3) Scientific publications in international journals in sectors related to the skills required in the call | max 8 points |

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| 4) Achievement of national and international prizes and awards for research activities related to the skills required in the call. | max 5 points |
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The score awarded for qualifications will be out of 30.

EU candidates must provide all of the statuses, information and qualities that they deem useful for the assessment of their qualifications in a statutory declaration, as per Art. 46 and 47 of Presidential Decree DPR no. 445/2000. Non-EU candidates are not allowed to use a statutory declaration, as per Art. 3 of Presidential Decree DPR no. 445/2000.

The application must include the following significant elements:

- the exact name of the awarding body (public or private)
- the period (from dd/mm/yy to dd/mm/yy)
- the type of contract and any category it falls under, the functions carried out and the position held
- the name and the date of the award.

Certificates issued by the European Union or Italy's Public Administration must not be submitted.

Publications must be attached to the application and must conform to the original.

Only publications or texts accepted for publication, in accordance with current regulations, as well as essays included in collective works and articles published in journals on paper or in digital format will be assessed, with the exclusion of internal notes or departmental reports. Doctoral theses or equivalent qualifications are taken into account even in the absence of the aforementioned conditions.

In the case of publications published abroad, the following details should be provided if possible: date, place of publication or, alternatively, the ISBN code or equivalent.

In the case of publications published in Italy before 2 September 2006, the obligations must be fulfilled in accordance with the forms provided for by article 1 of Decreto luogotenenziale (Legislative Decree of the King's Lieutenant) no. 660 of 31 August 1945. From 2 September 2006, the obligations must be fulfilled in accordance with the forms provided for by Legge (Law) no. 106 of 15 April 2004 and by the relevant regulation issued by D.P.R. (Presidential Decree) no. 252 of 3 May 2006, by the date on which the Call for Applications for Selection expires.

Publications and any documentation in a foreign language must be accompanied by a translation in Italian, certified as conforming to the original (foreign) text, prepared by the competent diplomatic or consular Representation or by an official translator or, where permitted, prepared by the candidates themselves with a statement that it conforms to the original text by means of a declaration in lieu of an affidavit which, pursuant to article 47 of D.P.R. (Presidential Decree) no. 445/2000, certifies the conformity of the translated text to the original text. Publications written in a foreign language may, however, be submitted in the original language (without the need for an accompanying translation) if this language is one of the following: French, English, German or Spanish.

Publications uploaded via the procedure may not exceed a total of 30 MB.

The evaluation of the qualifications will be carried out before proceeding to the correction of the written test. Candidates will be notified of their qualification-assessment result before they take the oral examination.

Examinations

Examinations will comprise a written test and an oral examination.

The written test with multiple choice questions will focus on the following topics:

- the main operating systems (Unix, Windows, OS);
- the programming languages used in neuroimaging (Matlab, Python, C++, R);
- management of multimodal databases;
- methods of pre-processing and analysis of the EEG signal;
- methods of pre-processing and analysis of functional and diffusion magnetic resonance images;
- knowledge of magnetic resonance sequences in order to develop experimental protocols.

The oral examination will focus on the following topics:

- the main operating systems (Unix, Windows, OS);
- the programming languages used in neuroimaging (Matlab, Python, C++, R);
- management of multimodal databases;
- methods of pre-processing and analysis of brain images and electrophysiological signals;
- pre-processing and analysis of functional magnetic resonance images acquired in resting state

The knowledge of the English language (European Framework of Reference for Languages: level B2) will be tested during the oral examination.

Examinations will take place at the following times and venues. No further notice will be given:

- **the written test** with multiple choice questions: on **9th May 2023**, at **10.30 a.m.**, at the Aula UE (Edificio DEI/G) - Department of Information Engineering – DEI, Via Gradenigo 6/a - Padova;
- **the oral examination**: on **10th May 2023**, at **4.00 p.m.**, at the Aula DA - Department of Information Engineering – DEI, Via Gradenigo 6/b – Padova.

Publication of this calendar is considered to be notification.

Approved candidates must come on the date and at the time communicated. No further notice will be given.

Candidates must show a valid ID document before being admitted to the examinations.

Any candidates not coming to the examinations will be deemed to have waived their place, regardless of the reason.

The examinations pass mark is 21/30 (7/10).

The list of candidates admitted to oral examinations will be published with their scores for the written test on the noticeboard of the “Padova Neuroscience Center” – PNC, Via Orus 2/B - 35131 Padova, and posted on the University of Padova website at <https://www.unipd.it/selezione-2023S13>.

All Commission sessions during the oral examination are public. At the end of each oral examination, the Commission will draw up a list of the candidates assessed with a score for those who have passed the examination. This list will be posted on the noticeboard of the “Padova Neuroscience Center” – PNC, Via Orus 2/B - 35131 Padova, and on the University of Padova website at <https://www.unipd.it/selezione-2023S13>.

Candidates can access the list with a personal password provided to all selection participants.

Overall ranking

The final score is calculated by adding up the score for the written test, the oral examination and the score for qualifications assessment.

The overall ranking will be published in the University of Padova's Official Register. Any appeals may be filed the day after the ranking is published.

The overall ranking is effective immediately.

The winner is entitled to the gross annual salary for the D category, financial position D3, as per the University section of the current National Collective Bargaining Agreement (CCNL), as well as to an additional quota as specified in the "University Regulations for Recruiting and Regulating 'Fixed-term Research Technologists', in accordance with Art. 24-*bis* of Law no. 240 of 30 December 2010." The salary will be paid into a bank or post-office account only.

The administration may decide not to draw up the agreement should there cease to be the need, opportunity or resources to proceed.

The ranking is valid for three years from its publication date and may be used to recruit additional fixed-term technologists with the same profile and level. All other aspects of employment will depend on the University's specific needs.

Anything not stated above is covered by the "University Regulations for Recruiting and Regulating 'Fixed-term Research Technologists', in accordance with Art. 24-*bis* of Law no. 240 of 30 December 2010", available at: <http://www.unipd.it> (see "*Statuto e Regolamenti*").

Pursuant to Law no. 241 of 7.8.1990, the selection-procedure manager is Cristian Poletti – *Ufficio personale tecnico amministrativo*, Riviera Tito Livio, 6, Padova, Italy.

The Technical-Administrative Staff office (*Ufficio personale tecnico amministrativo*) is open to the public at the following times:

From Monday to Friday from 10 am to 1 pm and on Tuesday and Thursday from 3 pm to 4.30 pm.

NB: This selection announcement has been translated into English for publication purposes only. The Italian version is valid for all legal purposes and for the resolution of any disputes.

Tel. 049 827 3155 - 3159 - 3494

e-mail: reclutamento.pta@unipd.it

Padua

The Director-General
Alberto Scuttari
digital signature (ex Legislative Decree 82/2005)

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|--|--------------------------------------|
| Selection-procedure Manager Cristian Poletti | Department Manager Tommaso Meacci |
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