



(This is a courtesy translation. The <u>OFFICIAL CALL to refer to</u> is the one published at the following address:

https://titulus.unifi.it/albo/viewer?view=files%2F003005123-UNFICLE-9687e0a0-c8b7-4676a928-5990cb29c45e-000.pdf)

CALL FOR APPLICATIONS FOR THE AWARD OF RESEARCH FELLOWSHIPS

Regulations on Research Fellowships pursuant to Italian Law n. 240/2010 University of Florence, issued by Rector's Decree n. 654 of 22.06.2015

Art. 1 – Purpose

Applications are invited for the selection running at the Dept. of Physics and Astronomy of the University of Florence for the award of 1(one) research fellowship grant, with a duration of 1 year, and renewable according to the terms laid down in the University Regulations (D.R. 654 of 22.06.2015), in the field of Cosmic rays' Physics (FIS/01) to carry on research activities within the project entitled "**Data analysis for the CALET experiment on the International Space Station**", according to the annexed Activity Programme. The call for applications for research fellowship, issued in compliance to the aforementioned University Regulations, is approved by the Department concerned in the session of 12th december 2018.

The activities shall be carried out under the supervision of a Tutor identified by the Department as **prof. Oscar Adriani**, in a non-subordinate relationship with no set working hours, starting **from 1**st **march 2019**.

The main location of the research work will be: Dipartimento di Fisica e Astronomia, Via Sansone 1 – 50019 Sesto Fiorentino – Italy.

Academic Discipline Sector (SSD)	Cosmic rays' Physics (FIS/01)
Research Programme	Data analysis for the CALET experiment on the International Space Station
Requirements for candidacy	Master Degree in Physics or Astronomy or equivalent degrees obtained under V.O. or a Master's Degree in Physics and Astronomy under the N.O. (D.M. 509/99 - D.M. 270/04 and subsequent amendments); - scientific and professional curriculum suitable for the conduct of the research
Sponsoring Department's address	Dipartimento di Fisica e Astronomia, via G. Sansone 1 50019 Sesto Fiorentino

Duration of the contract	1 year
Gross amount per year (inclusive of social security charges payable by collaborator 1/3 of 32.72%)	24,985.44 euro
Net amount per year (net of social security charges)	22,134.72 euro

Art. 2 – Requirements for candidacy and for renewal

The selection is open to candidates in possession of the following qualifications:

- Master's Degree in Physics or Astronomy;
- PhD in the field of Physics;
- Knowledge of the English language;
- No criminal convictions or pending prosecution;
- Appropriate scientific and professional CV.

Candidates must possess the admission requirements by the deadline for submission of applications stated in the call.

The renewal of the research contract is subject to the favourable evaluation of the research activity by the Tutor and by a Department Commission, and to the actual availability of budget resources.

Art. 3 – Eligibility restrictions

Any person who are related by marriage or by blood up to the fourth degree to a professor working in the department or unit issuing the call, or to the President (Rector), General Manager or a member of the Board of Governors of the University cannot, by law, participate to this selection.

The selection also excludes anyone who has held research fellowship contracts with any institution, pursuant to Italian Law n. 240/2010, for a period which, summed to the foreseen duration of this contract, exceeds a total of 6 years, excluding any period in which the contract coincided with a PhD without scholarship, for the maximum limit of the legal duration of the PhD programme.

Furthermore, the selection is not open to anyone who has had research fellowship or fixed-term researcher contracts at the University of Florence or any other state-funded, private-funded or distance-learning Italian university pursuant to articles 22 and 24 of Italian Law 240/2010, or with any other body list in paragraph 1 of art. 22 of Italian Law 240/2010 for a period which, summed to the foreseen duration of this contract, exceeds a total of 12 years, even if not consecutive. For the purposes of the duration of the above-described period, in compliance with the laws in force any period of maternity or sick leave

shall not be calculated.

Art. 4 – Application

The deadline to submit applications is 17th January 2019.

Applications received beyond the deadline will not be accepted.

Applications must be submitted using the template provided at the end of this call.

When submitting by post, courier or hand, the application must be in a sealed envelope bearing the title indicated in the call for proposal for Research Fellowship, and addressed to the **Direttore del Dipartimento di Fisica e Astronomia, via G. Sansone, 1 – 50019 Sesto Fiorentino (FI) – Italy**.

If sent by international courier, applications must be sent to address indicated above, and in this case the shipment must occur before the deadline. The shipment date stamp will be considered as the date of submission.

Applications submitted by hand should be taken to: **Dipartimento di Fisica e Astronomia**, **via G. Sansone**, **1 – 50019 Sesto Fiorentino (FI) – Italy** during the following opening hours: 10am - 1pm, from Monday to Friday.

The Department shall assume no liability for the non-delivery of correspondence which is not the result of errors made by its own staff.

In their application candidates must, under their own responsibility, indicate:

- a) Surname and given name;
- I) Date and place (town and country) of birth;
- m) Nationality;
- n) Residence and correspondence address;
- o) Skype nickname (in order to be interviewed by videoconference remote interview via skype accepted)
- p) That they do not have a criminal record and are not involved in any current criminal proceedings (or if so, state which);

Or:

1. That they possess an academic qualification obtained abroad, which is duly declared equivalent by the relevant authorities.

The candidates with a qualification obtained abroad must attach to their application a translation into Italian of it, accompanied by a self-declaration stating that it is a faithful

translation of the original certificate according to the template form hereby attached. The foreign qualification, without the necessary legalisation documents may be declared admissible as such by the Evaluation Commission, solely for the purposes of admission to the selection procedure.

The successful candidate who has obtained their qualification in a country outside of the European Union, must provide the Department, in the same manner as laid down for the presentation of applications, the official translation with a declaration of value (Dichiarazione di Valore in Loco) of the foreign qualification issued by the competent diplomatic representation or Italian consulate in their home country, in accordance with the applicable laws, within 30 days of winning the selection procedure. If the documents are not received by the Department within this time, the candidate will not be awarded the contract.

Candidates <u>must</u> also enclose with their applications the following:

• Their scientific and professional CV;

• Certificates of all qualifications considered useful for the selection. Academic and professional qualifications issued by an Italian public administration body must be self-certified or submitted as a photocopy, by way of a self-declaration (as per the attached form) that the photocopy is a true copy of the original (pursuant to articles 46 and 47 of DPR 445/2000);

- A photocopy of a valid Identification Document;
- A list of publications, certificates and any awards relevant to the call;

• The CINECA Form duly filled in. This is for the subsequent inclusion of the successful candidate's record inside the Italian Ministry for Education, University and Research (MIUR) database. Such data can be accessed on the website https://loginmiur.cineca.it, upon registration.

The signature on the application for selection <u>does not need</u> to be authenticated but it is obligatory otherwise the application cannot be accepted.

Candidates are admitted to the selection procedure with reserve. At any time, even after having taken part in any tests, the Administration may, with due justification, exclude any candidate from the selection procedure. The concerned candidates will be notified of such exclusion in writing.

Art. 5 – Comparative assessment of the candidates and the Evaluation Commission

The candidates will be assessed comparatively by an Evaluation Commission selected by the Board of the Department. The Evaluation Commission will be composed of the Tutor and two members chosen among tenured professors and researchers in the same scientific area as the research activity outlined in the call.

The selection procedure focuses on the examination of requisites laid down by the Evaluation Commission, the candidate's scientific-professional curriculum and the scientific

work and publications resulting from the documents enclosed with the application, as well as an interview, aiming to verify the suitability of the candidate for carrying out the research project.

The Commission will have up to 100 points for the appraisal of the candidates, 60 of which for the overall appraisal of the qualifications and to the professional and scientific curriculum vitae of the candidate, the other 40 points for the interview.

The evaluation of the candidate's qualifications will be made before the interview.

The Commission will preliminarily award the total score between the eligible items, the academic qualification and the curriculum, as follows:

• academic qualifications, additional to the requirements for admission: up to a maximum of 20 points;

• professional scientific curriculum: up to a maximum of 40 points

In the interview, the Commission will evaluate the knowledge and the qualification of the candidate to carry out the research that is the subject of the call.

The Commission will also proceed to ascertain the knowledge of the English language.

The interview will take place on 31th January 2019, time 2:30 pm, at the Department of Physics and Astronomy, room 173, via G. Sansone 1 – 50019 Sesto Fiorentino (Italy).

The above indication acts as the official notice of convocation.

For justified reasons, such as the residence abroad or the stay abroad, the interview can be done by videoconference (Skype). In the application the candidate must explain the request for a remote interview. The Commission of valuation have to establish, for the skype interview, a meeting time compatible with the time zone of the candidate.

In order to be admitted to the interview, candidates must present the same valid ID or passport attached to the application; the candidate have to declare the skype nickname in the call form.

If two candidates receive the same score, preference will be given to the younger candidate.

The Director of the Department shall confirm in writing his/her approval of the shortlist drawn up by the Evaluation Commission.

The final results will also be published in the "Official Register" (http://www.unifi.it/vp-10329-official-register.html). Any appeal against the final results' decree, should be made in writing, within ten days from the publication of said results. The claim must be addressed to the Director of the Department.

Art. 6 – Contract

The successful candidate will be invited to a sign a research contract with the Department within 28th February 2019.

Failure to accept and sign the contract within the deadline mentioned above shall lead to the forfeiture of the candidate's right to sign the contract.

In case of forfeiture, renunciation or failure to show up on on the contract's execution date without justifiable reason by the successful candidate, the research grant shall be assigned to the candidate ranking next to the renouncing applicant. The ranking will be valid for 90 days after its publication on the Official University Register.

The contract has a **duration of 12 months** and may be renewed in accordance to the terms outlined in the University Regulations concerning research fellowships (D.R. 654 of 22/06/2015).

The gross stipend of the research fellowship contract shall be \in 24,697.32 per annum. The amount is exempt from withholding tax but includes social security charges the Research Fellow is subject to. The net amount is therefore **22,134.72 euro** (net of social security charges-susceptible of change on the basis of the social security charge's rates during the duration of the contract).

The amount will be paid in deferred monthly payments.

The Research Fellow will need to take up compulsory insurance policy against accidents, for the research activity described in this contract. He/she has the option to underwrite the insurance policy that the University has collectively underwritten or to take up a private insurance of his/her choice (http://www.unifi.it/vp-3514-schema-tipo-di-contratto-per-collaborazione-ad-attivita-di-ricerca.html#assicurazioni)

Art. 7 – Rights and Obligations

The contract is governed by the following regulations concerning leave: for obligatory maternity leave, the provision laid down in the Decree of the Ministry of Labour and Social Welfare of 12.07.2007, published in the Official Journal n. 247 of 23.10.2007, and for sick leave, article 1, paragraph 788, of Italian law n. 296 of 27.12.2006 and amendments.

The research activities are carried out under the supervision of a Tutor, in a nonsubordinate relationship with no fixed working hours. The Research Fellow shall personally carry out the required activities laid down in the Activity Programme. No other person shall replace or substitute for him/her.

Research Fellows assigned to medical and clinical areas may carry out care activities exclusively for the healthcare organisations indicated in the specific agreements between the university and the health board.

Within six months of the research programme's execution date, the Research Fellow shall present a progress report about the activity carried out and the results achieved up to that point; the report shall be submitted to the research Tutor.

At the end of the work, the Research Fellow shall present a detailed final report to the Board of the Department, describing the activities carried out, the results achieved and the scientific developments, accompanied by the report written by the Tutor.

Art. 8 – Intellectual Property

Industrial Property rights over the results achieved by the Research Fellow in the execution of activities undertaken on behalf of the University are regulated by the University Regulations on Inventions deriving from research activities (Regolamento relativo alle invenzioni effettuate in occasione di attività di ricerca svolte da personale universitario - D.R. 595/2013). Article 2, in particular, states that: "The right to patent an invention realized by university researchers during research activities, in case that the research activities were not funded in whole or in part by private entities or realized with specific research projects funded by public entities different from University, belongs to the inventor or the co-inventors according to article 65 of the industrial property code (Legislative Decree n. 30/2005)."

According to Article 10 of the University Regulations on Inventions, by signing the contract, the Research Fellow automatically accepts the application of the above Regulations.

Art. 9 – Non-accumulation, incompatibility, leave

The position of Research Fellow is incompatible with the following positions:

- a) Fixed-term and full-time staff employed by the bodies listed in art. 22, para.1 of Italian Law n. 240/2010;
- b) Persons employed by any Public Administration body other than those listed in letter a) refer to the provisions of point 2 below;
- c)Persons with fixed-term research contracts with any university or equivalent academic institution worldwide;
- Adjunct professors with official teaching responsibilities in degree programmes or specialisation schools in any university or equivalent academic institution in Italy or abroad;
- e) Persons enrolled in any first, second or single cycle degree programmes, PhD programmes with scholarships or specialisation school;
- f) Persons awarded with research fellowships by any other body in Italy or abroad;
- g) Employees of the public sector other than those listed in point 1 letter a) with a fixed-term, permanent or part-time contract, must take unpaid leave of absence for the whole period of the research contract;
- h) The accumulation of the research fellowship contract with study grants awarded for any purpose is not permitted, with the exception of those granted by national or foreign institutions for the purposes of integrating the research activities stated in the contract with study periods abroad.

The above requirements must be possessed by the candidates as of the date of execution of the contract. The successful candidate shall sign a specific affidavit undertaking to notify the Department of any variations to the declared situation as soon as they occur.

Art. 10 – Suspension

The research activity shall be suspended for maternity reasons pursuant to the decree of the Ministry of Labour and Social Security of 12.07.2007 published on the Italian Official Journal n. 247 of 23.10.2007.

During the maternity leave, the indemnity paid by the Italian National Institute of Social Security (INPS) is integrated by the University fund up to the entire grant amount. The maternity leave shall be made up for after the natural conclusion of the research fellowship contract, in accordance with current legislation.

The research activity can also be interrupted for serious illness or serious family reasons; the suspension months could be made up for after the end of the natural conclusion of the research fellowship contract, upon agreement with the research Tutor and within the limits of the available funds.

Sick leave is regulated by article 1, section 788 of the Italian legislation n. 296 of 27.12.2006 and following amendments.

Suspension decrees shall be decided by the Director of the Department coordinating the research fellowship.

Art. 11 – Resolution

The Board of Department can decide, upon motivated request by the Tutor, for the resolution of this contract according to article 1453 and ff., of the Italian civil code, in the event that the Research Fellow does not carry out the research activities, without a justified reason or is found liable of serious and frequent defaults.

The resolution decree shall be disposed of by the Director of the Department coordinating the research fellowship.

Art. 12 – Termination of the research contract by the Research Fellow

If the Research Fellow decides to withdraw from the contract, he/she is obliged to send a written notification with at least 30 days of advance notice to the Tutor and to Director of the Department. In case of late or lack of notice, the amount corresponding to the missing notice period will be deducted from any payment due.

Art. 13 – Personal data

Personal data transmitted by candidates with the application form will be treated in accordance with the scope of the appraisal procedure and eventually for the drafting and management of the resulting agreement with the University. All data are treated according to the University Regulations on Privacy. At any time, candidates can exercise their rights to have their data amended or cancelled as per the above mentioned regulations.

Art. 14 – Governing laws

For all matters not specifically mentioned in this call, reference should be made to the Regulations on Research Fellowship D.R. n. 654 of 22.06.2015 and other statutory regulations in force.

Pursuant to Law n. 241 of 07.08.1990, the Responsible for this selection procedures is Mr.

Emiliano Chiezzi, e-mail emiliano.chiezziATunifi.it.

Art. 15 – Contacts and final remarks

For information about the research project, the candidates can contact the Tutor at: adriani@fi.infn.it

For information on this Call for Applications contact the Competition Manager or the research grants office: <u>ufficio_assegni_di_ricerca@adm.unifi.it</u>

For further information on the services offered to visiting academic and research staff by the University: <u>welcomeservice@unifi.it</u>

The documentation attached to the application will be returned at the request of the candidate within 60 days from the decree of publication of the final results. In any case, the candidate must provide, by them and at their own expense, after 60 days but within 120 days from the decree of publication of the final results, to recover their titles and publications eventually attached to the application. Expired such term, the Administration won't respond to any maintenance of the publications and the titles.

This call for applications will be published on the Official Register of the University of Florence on the University official website, the MIUR website and EURAXESS website

signed The Director Prof. Alessandro Marconi

Sesto Fiorentino, December 27, 2018

Data analysis for the CALET experiment on the International Space Station

The CALET experiment is installed on the International Space Station, and its main scientific objective is the precise measurement of the spectrum of electrons+positrons in cosmic rays above TeV energy. Such a measurement is of great interest for the indirect search for Dark Matter and in the investigation of nearby sources. Secondary objectives are the measurement of the hadronic spectra and of the B/C ratio. The data taking phase started in autumn 2015, and currently there are various ongoing data analysis activities in the collaboration.

The proposed program includes the continuation of and the support to the ongoing analyses in the Department. These include the measurement of the electron+positron spectrum and a new activity focused to the measurement of the fluxes of atomic nuclei.

About the first topic, it is foreseen to continue the study of the systematic errors which constitute the limiting factor for the precision of the already-published result, particularly focusing on those originating from the discrepancies between flight data and Monte Carlo simulations. This study is aimed at reducing the contribution of the systematics in order to fully exploit the increase in statistics given by the full data taking period of the experiment.

For the second topic, criteria for selecting nuclei from flight data will be defined and implemented. The selection efficiency will be studied by means of Monte Carlo simulations; the systematic errors of thewhole procedure will be evaluated as well. This activity will be conducted in cooperation with other groups in the collaboration which are already involved in similar tasks. The final goal is to measure the spectra of one (or possibly more than one) nuclear species up to energies of the order of 100 TeV/n.

The production of simulated data with the Monte Carlo simulation codes made available by the collaboration will be carried on as well, to reduce the statistical errors on correction factors and the efficiencies estimated with simulated data.

Sesto Fiorentino, November 28th, 2018

Oscar Adriani

Osca Ad-

APPLICATION FORM Template

To the Director of the Department of
Physics and Astronomy
Via G. Sansone, 1
50019 Sesto Fiorentino (FI)
Italy

I,	(family name)					(first name/s)
Place of birth						
Permanent address: (Town)	Provi	nce/St	ate			
Street		_ n	Po	stal	code _	
Country	_ Phone number (inc country	y code) _				
e-mail						
Skype nickname (in order to be inte	rviewed by videoconfere	ence –	remot	e in	terviev	v via skype
accepted)						

Social security and tax number (Codice fiscale)

HEREBY APPLY

for admission to the selection procedure laid down	in the call for applications - Director decree n.
of (date) for the award of _	_ research fellowship(s) for the execution of
activities and collaboration with research project _	
at the Department of	at the University of Florence.
For such purpose, and aware of the civil and penal re	sponsibilities in the event of false declarations,

I HEREBY DECLARE

According to articles n. 19, 46, 47 of D.P.R. n. 445/2000:

that I am a citizen of ______ (Country) only for foreign applicants from non-UE countries

- I declare that I do not possess a residence permit for Italy
- - that I have a degree in _____

sep awarded on

(date) _____ by _____

• that I have a PhD in

awarded on

(dd/mm/yyy) _____. by (institution)____

• that I do not have a criminal record and am not involved in any current criminal proceedings (or if so, state which);

• that I am not related by marriage or by blood up to the fourth degree, to any teaching staff working in the Department for which the call is issued, nor with the President, General Manager or a member of the Board of Governors of the University

• that I am aware that the following persons cannot take part in the selection procedure: anyone who held fellowship contracts with any Italian private or public institution as per list in para. 1 of art. 22, Italian L. 240/2010, for a period which, summed to the foreseen duration of this contract, exceeds a total of 6 years, including any renewals but excluding any period in which the contract coincided with a PhD program, for the maximum limit of the legal duration of the PhD program. For the purposes of the duration of the above-described period, in compliance with the laws in force any period of maternity or sick leave is excluded from the calculation.

• that I am not currently employed with a public or private firm, either with a permanent or a temporary contract (including part-time contracts)

• that I have a certified disability and require the following support:

I hereby understand that personal data provided with this application form, according to the University Regulations, issued with Rector's Decree n. 449 of 07.072004 and amended with Decree n. 1177 (79382) on 29.12.2005, will be treated in accordance with the aims of the appraisal procedure and eventually for the drafting and management of the resulting agreement with the University, and pursuant to the University regulations regarding privacy policy. At any time, I can exercise my rights as stated in the aforementioned regulations.

I hereby declare under my own responsibility that all information provided above are true and correct.

Date_____

Signature_____

Please attach a copy of your valid ID or have your signature authenticated:

According to art. 21	, section 2, of D.P.R 445/2000, cer	tify that the signature of	of the above
declaration has been	n made in the presence of Mr/Ms		_identified with
(type of ID)	n	issued on	
	by	and advised of his/he	er criminal
responsibilities in ca	ase of mendacious declarations (art	. 76 of the D.P.R. 445/2	2000)

Sesto Fiorentino_____ Person in charge _____

(Space required for authenticated signature)

Self declaration of conformity to the original Declaration given according to art. 19 and 47 of D.P.R. n° 445 of 28/12/00 (To be filled out and attached in case of one or more documents provided as photocopies)

I,	(family name)				(first name/s)
Place of birth	(Country)	Date	of	birth	(dd/mm/yyyy)
Permanent address: (Town)	Provinc	e/State			
Street		Po	ostal	code _	
Country					

Aware of the fact that in case of mendacious declarations, falsity in the proceedings or use of false proceedings, will incur in the sanctions according to articles 75 and 76 of the Italian legislation n. 445 of 28/12/00 and immediately looses the award of the grant:

DECLARE

-that the copies of the documents or the copy annexed in electronic form listed below are compliant with the original

1)	 		
2)	 	 	
3)			
etc			

date_____

The Declarant

Please attach the copy of your valid photo ID or:

According to art. 21, section 2, of D.P.R 445/2000, I certify that the signatures of the declaration above have been placed in front of me by Mr/Ms _______identified with document type_______ n.____ date of issue ______ and I advised the applicant of his/her criminal responsibilities in case of mendacious declarations (art. 76 of the D.P.R. 445/2000)

Florence, _____ Person in charge _____ (Space required for authenticated signature)

ATTACHMENT 3

LIST OF ATTACHMENTS TO THE APPLICATION FORM

I,	(family name)					(first name/s)
Place of birth						
Permanent address: (Town)	Provi	nce/St	tate			
Street		_ n	Po	ostal	code _	
Country						
contact details if different from the o	nes above by the time the se	electio	n proce	ess is	s concl	uded:
Correspondence address: (Town)		Provi	nce/Sta	te		
Street		_ n	Po	ostal	code_	
Phone number						

ATTACH

To this application the following:

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

Date _____

Signature

ATTACHMENT 4

CINECA Form for Research Grant Agreement

(THE INFORMATION GIVEN BELOW MUST COINCIDE WITH THAT GIVEN IN THE APPLICATION FORM - ATTACHMENT 1)

PERSONAL DATA

Social Security/Tax	number (Codice fiscale) (pl	ease print in block lett	ers)	
Family Name		First Name		
SexDate of bir	th// (dd/mm/yyyy) I	Place of birth		
Province/state	Country of birth	Citi	zenship	
ADDRESS AND	CONTACT DETAILS			
Permanent address:	Street name		n.	SEP Postal
code To	own	Provi	nce/area	
(Comune)	Country			
Country	Province/ar			
Street name	·	n	Postal code	
	Prov)	_
Country				
E-MAIL		MOBILE PH. N.		
EDUCATIONAI	QUALIFICATIONS C	BTAINED:		
() Foreign qualifi	cation			
() Four year degree	e –(vecchio ordinamento) in	n		
() Master Degree	– Laurea Specialistica N.O.	class (classe)	/S ()
	ree – Laurea Magistrale N University of			

(Academic Year	/) G	rade_			
() Specialization in					
SEPObtained at the Uni	versity of			on	(Academic
Year/)					
() DOCTORAL/PH	D QUALIFIC	ATIO	N IN		obtained in
(date)	at	the	University of		Cycle (Ciclo)
			_Number of Months		
Scholarship NO () or YES () F	From dd/mm/yyyy to a	ld/mm/yyyy	- number of months

ENROLMENT IN THE PROFESSIONAL REGISTER OF

Province/State	Address	
AGREEMENT DATA		
Institution of affiliation:		
Call details: Director Decree n	of	
Number of months	Starting date (dd/mm/yyyy)	
Research Supervisor (Tutor)		
Research Project Title:		
Field	_Other fields (if applicable)	
Date	Signature	