



Istituto Nazionale di Astrofisica

**OSSERVATORIO ASTRONOMIC
DI BRERA**



D.D. n. 97/13

*Selection procedure based on qualifications and possibly an interview for **two postdoctoral research fellowships** (Assegno di Ricerca - Tipologia A POST-DOC), to support work in the framework of the **European Space Agency mission "Euclid"***

THE DIRECTOR OF THE "OSSERVATORIO ASTRONOMIC DI BRERA"

Taking into account	the "Decreto Legislativo 4 giugno 2003, n. 138 - Riordino dell'Istituto Nazionale di Astrofisica (INAF)" published on G. U. n.140, 19 June 2003;
Taking into account	the INAF Statute, approved on 7 March 2011, and effective as of 1 May 2011;
Taking into account	the INAF "Disciplinare di organizzazione e funzionamento dell'INAF" as of 03 May 2012;
Taking into account	the INAF "Regolamento sull'amministrazione, sulla contabilità e sull'attività contrattuale" as of 24 Oct 2004;
Taking into account	the INAF "Personnel Rules and Regulations" as of 1 Jan 2005;
Taking into account	Italian Law n. 240, 30 Dec 2010;
Taking into account	the INAF Regulations for the awarding of research fellowships approved by the Administrative Council on 22 June 2011, Resolution n. 06/11;
Given	that the funding of the research fellowship will be guaranteed by the EUCLID project (CRA 1.05.04.37.04 – cap. 1.05.08. - OA Brera)

DECREES

Art. 1 – Research project

A selection based on titles and qualifications, possibly integrated by an interview, is open to award two research fellowships, "Assegno di Ricerca – Tipologia A POST-DOC", entitled **"Optimizing the Euclid spectroscopic probe: testing modified gravity theories with redshift-space distortions"**.

Measurements of "redshift-space distortions" (RSD) in the clustering of distant galaxies are one of the primary objectives of the ESA Euclid mission in the study of the "dark Universe". By probing the growth rate of cosmic structures, they provide us with a direct test of the theory of gravity and the possibility that deviations from General Relativity are in fact the true origin of the apparent acceleration of cosmic expansion (rather than "dark energy").

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The successful fellows will work in collaboration with OAB and other Euclid members (in particular in the Galaxy Clustering, Weak Lensing and Theory Working Groups) with the aim of (a) Investigate the impact of systematic effects that will potentially affect Euclid measurements and the optimal estimators to be applied, through the use of large numerical simulations; (b) Investigate “plausible” models of modified gravity (as e.g. $f(R)$ theories) through both analytic and numerical techniques, in particular studying the growth of density perturbations in such alternative scenarios.

Art. 2 – Requirements

According to the Italian law for “Assegni di Ricerca” applicants must fulfill the following requirements in order to participate in the selection:

- Doctorate in Astronomy or Physics or equivalent, obtained from an Italian or foreign University, or, equivalently, university degree plus 3-year post-graduate research experience
- Excellent command of the English language

Art. 3 – Application procedure

Applications should be sent **in electronic form** (PDF), to the attention of Mr. Luca Ciarfaglia e Dr. Luigi Guzzo at the addresses: luca.ciarfaglia@brera.inaf.it and luigi.guzzo@brera.inaf.it. Only applications received **by 10 January 2014** will be taken into full consideration. Please quote reference **"EUCLID Fellowship"** on all correspondence. **A printed copy of the application, properly signed, shall also be sent by standard mail at the following address:**
Ufficio Concorsi – INAF - Osservatorio Astronomico di Brera, Via Brera 28, 20121 Milano, Italy

A. The applicant should send the following documents:

- (1) Application Form, as available in Annex 1, duly filled in;
- (2) Curriculum Vitae, **duly signed and dated**, detailing in particular the past experiences on the subject of this fellowship;
- (3) Statement of research interests and qualifications;
- (4) List of publications;
- (5) Copy of a valid identity document (ID card or passport);

B. In the Application Form, the applicant must explicitly state, under his/her own responsibility:

- Name(s) and surname, date and place of birth, nationality, place of residence and address for correspondence;
- That he/she satisfies all the requirements described in article 2 of this Call;
- That he/she is aware of and is not ineligible under any of the restrictions described in Article 4 of this Call.

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The lack of any of the above mentioned statements would determine the exclusion from the selection procedure for incomplete application.

C. The applicant should also arrange to have three letters of reference by scientists familiar with his/her work, sent to the same e-mail addresses (luca.ciarfaglia@brera.inaf.it and luigi.guzzo@brera.inaf.it).

The successful candidates will have to provide OA-Brera administration, before the end of the Academic Year 2013-2014, with copy of the PhD certificate or of an equivalent foreign academic qualification.

It is the responsibility of the applicant to provide correct contact details for communication purposes. INAF accepts no responsibility for any miscommunication that may arise due to inaccurate contact details or if such details are out of date. INAF also denies liability for any problem related to the postal delivery service.

Art. 4 – Ineligibility and incompatibility with other funding

The Research fellowships cannot be held either by INAF employees (holding both permanent and non-permanent contracts), nor by regular employees of Institutes listed in article 22, paragraph 1 of Italian Law n. 240/2010. Fellowship holders are not allowed to enroll in a “Laurea Specialistica”, or “Laurea Magistrale” (Master Level) degrees, or to enter a PhD program covered by a separate fellowship. For employees of the Italian Public Administration, a compulsory unpaid leave of absence is foreseen. Retired persons are also not eligible for these research fellowships.

The fellowship cannot be held contemporarily with other fellowships of any kind, except those awarded with the aim of integrating the training or research activity of the fellowship holder through a period spent abroad. Aggregation of income from working activities, also part-time, carried out continuously is not accepted. Instead, limited self-employed occasional work is compatible with the fellowship, only if this is not prejudicial to the research activity carried out for INAF. This must be authorized in advance by the Director of INAF/OA-Brera, where most part of the research activity is carried out.

When formally accepting the fellowship, the successful candidate will declare that he/she is not cumulating fellowships. Also excluded are persons who have been beneficiaries of Research fellowships under article 22 of Italian Law 240/2010 for a total period exceeding four years, including extensions, but excluding the periods in which the fellowship has been held in coincidence with Doctoral studies (up to the maximum legal time limit of the course), as well as periods of maternity leave or sick leave, in accordance with current legislation.

Art. 5 – Duration of the research fellowships

The Research fellowships are initially awarded for **12 months** and can be further extended, upon availability of funding (also from different financial sources) and a positive assessment by

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the responsible of the research project, Dr. Luigi Guzzo. In accordance with the Italian Law n. 240/2010 the total duration of the fellowship will not in any case exceed four years (excluding periods of maternity leave or sick leave, in accordance with current legislation.)

Art. 6 – Host Institution

The fellows will carry out the research at the Merate premises of INAF Osservatorio di Brera, where the Euclid group is based.

Art. 7 – Salary

The gross yearly salary for these positions will be **28,000.00 (Twenty-eight-thousand/00) Euro**. This amount is net of burdens to be charged to INAF/OA-Brera and will be paid in deferred monthly installments.

Applicable fiscal rules are the provisions of art. n. 4 of Italian law n. 476/1984 and subsequent modifications and integrations. Applicable social security rules are defined by art. n. 2, paragraph 26 and following paragraphs of the Italian Law n. 335/1995 and subsequent modifications and integrations. Applicable rules for obligatory maternity leave are provided in the Decree of the Italian Ministry of Labour and Social Security dated 12 July 2007, published in the "Gazzetta Ufficiale" n. 247, October 23rd 2007. Applicable rules for sick leave are provided by art. n. 1, paragraph n. 788 of Italian law n. 296, December 27 2006, and subsequent modifications.

During the period of obligatory maternity leave, the allowance paid by INPS (Italian National Institute for Social Security) according to art. n. 5 of the above Decree dated 12 July 2007 is supplemented by INAF up to the total amount of the fellowship. The period of obligatory maternity leave will not contribute to the maximum duration of the fellowship foreseen by the contract.

INAF/OA-Brera provides accident and civil liability insurance coverage through the ERC Advanced Grant support. The insurance policy does not cover civil liability of the fellowship holder towards INAF.

Art. 8 – Selection Committee and selection procedure

The selection will be performed by a Selection Committee appointed by the Director of INAF/OA Brera and is composed of three members, including the scientist in charge of the project. The selection is based on qualifications, possibly integrated by an interview. The Selection Committee can establish a short list of the eligible applicants to be interviewed, on the basis of titles and qualifications and documented experience in the scientific or technological activities on the specific subject of the research fellowship. If approved by all members of the Committee, the interviews can be performed via videoconference, to ease the procedure for foreign candidates and reduce costs. Applicants selected for the interview will be summoned with 15 days notice.

The total ranking score is 100 points: a maximum of 70 for titles and qualifications, and a maximum of 30 for the interview. At the conclusion of the selection procedure the Selection Committee will produce a ranked list.

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The approval decree of the selection procedure and the ranked list will be published on INAF/OA Brera web site: "<http://www.brera.inaf.it>".

Art. 9 – Awarding of the fellowship

The highest-ranked candidates will receive a written notification with an offer of the research fellowship, which will be anticipated by e-mail to assure a speedy process. Within 7 days from receipt of the formal notification of the award they must provide a formal declaration of acceptance of the fellowship, or of withdrawal. The declaration can also be anticipated by electronic mail. In case no declaration is received, the candidate is considered as withdrawn and thus excluded. The committee can then move down the ranking and repeat the procedure with the third-ranked candidate, and so on, until the fellowships are accepted.

Under no circumstances the signing of the contract will start a subordinate employment relationship or ensures any rights to access to permanent INAF staff positions.

Art. 10 – Starting date and fellowship obligations

Expected starting date of the research fellowship is 1st February or 1st March or 1st April or 1st May 2014. The holders of the fellowship:

- will start the research activity on due date, as for the contract with INAF - OA-Brera, unless prevented by force majeure or exceptional circumstances, of which the Director of INAF – OA Brera must be timely informed;
- will carry out their research activities under the supervision of the Principal Investigator of the project, Dr. Luigi Guzzo, who will also monitor the fellow's progress;
- are required to issue periodical activity reports as established in the contract. The activity reports will be subject to approval by the project supervisor. Approval failing, duly justified by the supervisor, will give INAF – OA Brera the right to terminate the contract;
- In case of resignations, they are required to notify in written form OA – Brera Director at least 30 days in advance of the expected date of terminating the appointment. If failing in this obligation, INAF/OA-Brera will be entitled to retain (or request the reimbursement of) the amount of salary corresponding to the fraction of the 30-day advance-notice period not fulfilled.

The holders of the fellowships who fail in carrying out their regular research activity, without producing justified reasons or lacks repeatedly to fulfill requirements or, according to the evaluation of the scientist in charge, eventually shows evident lack of skills at the planned research activities, will incur in the termination of the contract.

Temporary suspensions of the research fellowship are due in case of obligatory maternity leave or in case of illness lasting longer than one month or to any other serious reason. The reasons for suspending the research fellowship must be proved and certified, and promptly sent to the Director of INAF/OA-Brera.

Art. 11 – Personal Data

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In accordance with art. 13, paragraph 1 of the Italian Legislative Decree n. 196/2003 and subsequent modifications, personal data provided by the candidates will be used exclusively for the purposes of this selection. Candidates who wish to obtain further information, or to exercise their rights under art. 7 of the above mentioned Legislative Decree, may contact the responsible administration employee for this call.

Art. 12 – Responsible Employee

The responsible administration employee for this job announcement processing is Mr. Luca Ciarfaglia

Art. 13 – Applicable regulation

INAF/OA-Brera shall abide by provisions in force promoting equal opportunities for women and men, non-discrimination and respect of privacy in processing personal data. For what not explicitly mentioned in this announcement, INAF/OA-Brera shall act in compliance with the regulations in force concerning Italian public selection procedures, when applicable by analogy.

According with art. 8 of INAF rules and regulations on “Assegni di Ricerca”, the present call will also be published, on the following web sites:

<http://www.inaf.it>

<http://www.brera.inaf.it>

http://www.brera.inaf.it/utenti/guzzo/DARKLIGHT_announcement

Milano, 16 December 2013

The Director
(Dr. Giovanni Pareschi)

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ANNEX 1: APPLICATION FORM

(to be filled, signed and sent in PDF form by email to luigi.guzzo@brera.inaf.it and luca.ciarfaglia@brera.inaf.it; a printed copy should also be mailed to the address below)

To: Ufficio Concorsi, INAF - Osservatorio Astronomico di Brera
Via Brera 28
20121 Milano
Italy

I, THE UNDERSIGNED,

(Forename(s))..... (Surname).....

Place of birth (Town/Country).....

Date of birth (dd/mm/yy)

Nationality

Permanent residence address (number/street/town/postal code/Country):

.....

Email address:

agree to the processing of my personal data, in accordance with Italian Leg. Decree n. 196/2003, for the purposes of the present selection procedure.

I, THE UNDERSIGNED,

having read the Call for applications for two “Assegni di Ricerca” (research fellowships) entitled: **“Optimizing the Euclid spectroscopic probe: testing modified gravity theories with redshift-space distortions”**.

APPLY

to the above mentioned position, and to this end, being aware that false declarations are punishable by law under art. 76 of Italian Presidential Decree n. 445/2000 and that this Administration will carry out random checks on the accuracy of the declarations made by candidates,

DECLARE

under his/her own responsibility and in accordance with articles 46 and 47 of Italian Presidential Decree 445/2000, that:

- I obtained a Research Doctorate (PhD)

.....

awarded by..... on,

or rather that I have a university degree in awarded by.....

plus 3-year post-graduate research experience

- that I have a professional level of knowledge of the English language;

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- that I am aware of the restrictions described in Article 4, of the Call for applications for this research fellowship;
- that I have never received a research award as per art. 22, Italian Law 240/2010, or rather
- that I have previously received a research award as per art. 22, Italian Law 240/2010 and, in particular I have been the recipient of:

1. a research fellowship entitled.....,
at (name of the institution).....,
beginning.....ending.....total months.....
(add extra lines as required, in case of other fellowships)

- that I am not under any similar contract for research activities at INAF or any other Italian or foreign institution;
- that I am not a retired person;
- that I am aware that, under art. 22 Italian Law 240/2010, the research fellowship:
 - may not be held contemporarily with attendance of a “Laurea Specialistica”, or a “Laurea Magistrale” degrees, as well as with attendance of PhD courses with fellowship;
 - may not be held contemporarily with other fellowships of whatever kind, except those awarded with the aim of integrating the training or research activity of the fellowship holder through a period spent abroad;
 - does not allow aggregation of income from other working activities, also part-time, carried out continuously;

- that I wish to receive any communication relating to the selection at the following address and that I will give due notice of any change of address:

Address (number/street/town/postal code/Country):

.....

Email address:

To be attached to this form:

- **Curriculum vitae, signed and dated by the applicant**, detailing the past experiences on the subject of this fellowship;
- **Statement of research interests and previous qualifications;**
- **List of publications;**
- **Copy of a valid identity document** (ID card or passport);

To be sent separately, three reference letters by scientists familiar with the applicant's work.

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The Undersigned declares his/her consensus for his/her personal data to be treated respecting the Italian Law "Decreto Legislativo" n. 196/2003 and subsequent modifications and integrations, in order to fulfill the procedures necessary for the present Call.

Date

Signature

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ANNEX 2: CV DECLARATION

(TO BE SIGNED, SCANNED INTO A PDF FILE AND MERGED INTO A SINGLE PDF FILE AS COVER OF YOUR CV, THEN SENT TOGETHER BY BOTH EMAIL AND SURFACE MAIL TO THE ABOVE PROVIDED ADDRESSES)

I, THE UNDERSIGNED,

being aware that false declarations are punishable by law under Article 76 of Presidential Decree no. 445 of 28th December 2000, and that this Administration will carry out random checks on the accuracy of the declarations made by candidates

DECLARE UNDER MY OWN RESPONSIBILITY

and in accordance with Articles 46-47 of Presidential Decree no. 445 of 28th December 2000 ("SELF-EXECUTED CERTIFICATE AND SELF-EXECUTED AFFIDAVIT")

THAT THE ATTACHED CV REPORTS TRUE STATEMENTS AND FACTS.

The Undersigned declares his/her consensus for his/her personal data to be treated respecting the Italian Law "Decreto Legislativo" n. 196/2003 and subsequent modifications and integrations, exclusively to fulfill the procedures necessary for the Call, for which this statement is made.

Date

Signature

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