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OSSERVATORIO ASTRONOMICO DI BRERA

D.D. n. 61/2013

Selection procedure based on qualifications and possibly an interview for one PhD research fellowship (Assegno di Ricerca) as part of the ERC Advanced Research Grant project "DARKLIGHT: Illuminating Dark Energy with the Next Generation of Cosmological Redshift Surveys".

THE DIRECTOR OF THE "OSSERVATORIO ASTRONOMICO 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;

In force of the framework agreement between INAF and Fondazione CRUI

(Conferenza dei Rettori delle Università Italiane)

Given the successful outcome of the European Research Council (ERC)

Advanced Research Grant proposal n.291521 "DARKLIGHT: ILLUMINATING DARK ENERGY WITH THE NEXT GENERATION OF COSMOLOGICAL REDSHIFT SURVEYS", submitted by Dr. Luigi Guzzo to the European Research Council Call for Proposals ERC-

2011-AdG;

Given the successful completion of the negotiations between INAF, ERC

and Dr. Luigi Guzzo, and the signature of the Grant Agreement on

15 February 2012;



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Given

the total amount of 1,723,600 Euro awarded to the project, of which 603,260 Euro have been already transferred to INAF – OAB;

Given

the obligation of the "beneficiary", namely INAF - Observatory of Brera, to ensure the necessary scientific autonomy to Dr. L. Guzzo (principal investigator, of the ERC Advanced Grant project) in particular as regards the selection of other team members, hosted and engaged by the beneficiary (OAB) or other legal entities, in line with profiles needed to conduct the research, including the appropriate advertisement (as described in the Supplementary Agreement for the aforementioned Advanced Grant);

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Art. 1 - Research thesis project

A selection based on titles and qualifications, possibly integrated by an interview, is open to award one 1-year research fellowship (Assegno di Ricerca) to support 12 months of PhD course on a project entitled "**Selection of multiple tracers of large-scale structure**". The selection is open to any candidate who is currently enrolled without financial support in a PhD program due to be completed not before the end of the Academic Year 2013/2014.

DARKLIGHT is a cosmology program funded by a 5-year ERC Advanced Grant awarded to Dr. Luigi Guzzo. The overall program aims at improving techniques to extract cosmological information from galaxy redshift surveys, focusing on redshift-space distortions and their combination with other probes of large-scale structure.

The successful applicant will perform research in collaboration with Dr. Luigi Guzzo and the other members of the DARKLIGHT program in Merate. The research work is connected with the measurement of cosmological parameters (especially the growth rate of structure) from the large-scale distribution of galaxies using the so-called multi-population approach. The PhD student will focus in particular on the characterization of galaxy populations in large galaxy surveys through their spectral properties (in particular using the new data of the VIPERS survey), using advanced techniques such as the Principal Component Analysis.

Art. 2 - Requirements

Applicants must fulfill the following requirements in order to be eligible for the fellowship:

- Having been selected, without financial support (i.e. having obtained the "idoneita' senza borsa"), by a PhD program in Physics or Astronomy at an Italian university.

Further, expertise in one or more of the following topics will be considered as an asset:

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- Automatic classification of galaxy spectra and its applications to large galaxy catalogues, in particular with Principal Component Analysis techniques.
- Statistical analysis of the large-scale structure of the Universe.
- Clustering models and redshift-space distortions.
- Dark energy and alternative models for cosmic acceleration.
- Good command of the English language.

Art. 3 - Application procedure

Applications should be sent **in electronic form** (PDF), to the attention of Dr. Luigi Guzzo and Mr. Luca Ciarfaglia at the following addresses: <u>luigi.guzzo@brera.inaf.it</u> and <u>luca.ciarfaglia@brera.inaf.it</u>. A printed copy of the application, duly signed, shall also be sent by regular mail at the following address:• **Ufficio Concorsi- INAF-Osservatorio Astronomico di Brera- Via Brera 28- 20121 Milano- Italy.**

Only applications received <u>electronically</u> by Friday 20 September 2013 will be taken into full consideration. Please quote reference "<u>DARKLIGHT PhD 1-year fellowship</u>" as the subject of the electronic application and on the envelope of any standard mailing.

A. The applicant must state clearly and precisely in the application form, 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.

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

B. The applicant should send the following documents:

- (1) The Application Form attached to this announcement, duly filled in;
- (2) A Curriculum Vitae, signed and dated;
- (3) A statement of research interests and qualifications, detailing in particular any past experience on the subject of this fellowship and relevant publications, if any;
- (4) A copy of a valid identity document (ID card or passport).

C. The applicant should also arrange to have <u>two letters of reference</u> by scientists familiar with his/her University studies and previous work experience, sent directly to the same e-mail address.

In case he/she is awarded the PhD fellowship the successful candidate will have to provide the OA-Brera administration, within one month after having accepted the fellowship, with:

- copy of the degree certificate or of an equivalent foreign academic qualification;
- proof of the admission to a PhD course in one of the above-mentioned universities.





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

Art. 4 - Ineligibility and incompatibility with other funding

The Research fellowship 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.

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 the doctoral research program is carried out.

When formally accepting the fellowship, the successful candidate will declare that he/she is not cumulating fellowships.

Retired persons are not eligible for the fellowship.

Also excluded from participation are persons who have carried out 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 and excluding periods of maternity leave or sick leave, in accordance with current legislation.

Art. 5 - Duration of the PhD fellowship

The research fellowship is expected to cover 1 year of the PhD course and is thus awarded for **1 year**. In accordance with the Italian Law n. 240/2010 the fellowship will in no case exceed four years (excluding periods of maternity leave or sick leave, in accordance with current legislation). The student performance will be assessed at the end of each year and INAF-OAB has the right to terminate the contract, in case progress is declared as unsatisfactory by the scientific supervisor.

Art. 6 - Host Institution

The PhD student will carry out his/her thesis project at the Merate premises of INAF Osservatorio di Brera, where the DARKLIGHT program is located.



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Art. 7 - Salary

The gross yearly salary for this position will be **19,367.00** (Nineteen thousand, three hundred and sixty-seven/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 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 duration of the fellowship foreseen by the contract.

INAF/OA-Brera provides accidents and civil liability insurance cover 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 (if needed) for the interview. At the conclusion of the selection procedure the Selection Committee will produce a ranked list.

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





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The highest-ranked candidate will receive a written notification with an offer of the PhD fellowship, which will be anticipated by e-mail to assure a speedy process. Within 10 days from receipt of the formal notification of the award she/he 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 second-ranked candidate, and so on, until the fellowship is accepted. Under no circumstances the signing of the contract starts 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 PhD fellowship is to be agreed between the awardee and the Dr. Guzzo, but in any case before **1**st **November 2013**. The holder 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 her/his research project under the supervision of the Principal Investigator of the project, Dr. Luigi Guzzo, who will also monitor the fellow's progress;
- is 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;
- is required to send a written note in case of withdrawal, with at least 30 days notice, otherwise INAF/OA-Brera will be entitled to retain or request the reimbursement of the salary amount corresponding to the notice time-span she/he has failed to send.

The holder of the fellowship who fails in carrying out her/his regular research activity, without producing justified reasons or lacks repeatedly to fulfill requirements or, according to the evaluation of the scientist in charge, shows evident inability to work on the thesis, 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

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 wishing to obtain further information, or to exercise their rights under art. 7 of the above mentioned Legislative Decree, may contact the Responsible for the administration of this call.

Art. 12 - Responsible Officer



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The officer in charge 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.

The present call will also be published, according with art. 8 of INAF rules and regulations on "Assegni di Ricerca", on the INAF/OA Brera websites and on the DARKLIGHT announcements page:

http://www.inaf.it

http://www.brera.inaf.it

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

Milan, 22 August 2013

The Director (Dr. Giovanni Pareschi)





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ANNEX 1: APPLICATION FORM

(TO BE SIGNED AND SCANNED INTO A PDF FILE TO BE E-MAILED TO THE ADDRESS PROVIDED BELOW)

To: Dr. Luigi Guzzo INAF – Osservatorio Astronomico di Brera Via Bianchi 46 23807 Merate (LC) ITALY

<u>luigi.guzzo@brera.inaf.it</u> <u>luca.ciarfaglia@brera.inaf.it</u>

I, THE UNDERSIGNED,
Forename(s))
Surname)
Place of birth (Town/State)
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
he purposes of the present selection procedure.

I, THE UNDERSIGNED,

having read the Call for applications for an "Assegno di Ricerca" (PhD research fellowship) entitled: "Selection of multiple tracers of large-scale structure".

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,

Osservatorio Astronomico di Brera





OSSERVATORIO ASTRONOMICO DI BRERA

DECLARE

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

I hold a Master degree in
awarded by on
• I am currently enrolled without financial support (or expect to be enrolled by) in a Graduate Course program (PhD) in Physics, Astronomy or equivalent at the University of (one among the universities of Milano, Milano-Bicocca or Insubria);
I have a good level of knowledge of the English language;
 I am aware of the restrictions described in Article 4, of the Call for applications for this research fellowship;
• I have never received a research award as per art. 22, Italian Law 240/2010;
 I have previously received a research awards 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), beginningendingtotal months
 I am not under any similar contract for research activities at INAF or any other Italian or foreign institution;

- I am not a retired person;
- I am aware that, under art. 22 Italian Law 240/2010, the PhD fellowship:
 - cannot be held contemporarily with attendance of a "Laurea Specialistica", or a "Laurea Magistrale" degrees;
 - cannot 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;
 - cannot permit aggregation of income from other working activities, also part-time, carried out continuously;
- I wish to receive any communication relating to the selection at the following postal and email addresses and that I will give due notice of any change of address:

Osservatorio Astronomico di Brera





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

To be attached to this form:		
subject of this fellowship a - Statement of research into	and dated by the applicant, detailing the pase and any relevant publications; erests and list of previous qualifications; ocument (ID card or passport);	t experiences on the
To be sent separately, up to two r	reference letters by scientists familiar with the	e applicant's work.
	consensus for his/her personal data to be tr n. 196/2003 and subsequent modifications essary 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 PLEASE MAIL IT TO luigi.guzzo@brera.inaf.it and luca.ciarfaglia@brera.inaf.it)

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