



OSSERVATORIO ASTROFISICO DI ARCETRI

Firenze

Decreto n. 41

Anno 2013

*Selection procedure based on qualification and possible interview for the awarding of one research fellowship entitled: “**Development and calibration of methods to chart the stellar mass in galaxies based on optical/NIR imaging plus imaging spectroscopy and/or FIR imaging**” Category: Post-Doc (in accordance with Article 22, Law 240/2010, and Grant Agreement n. 326466) CUP C11J13000010006*

**THE DIRECTOR OF INAF ASTROPHYSICAL OBSERVATORY OF ARCETRI**

<b>Having seen</b>	the Statute of the Istituto Nazionale di Astrofisica (INAF), adopted by INAF Administrative Council on 7 March 2011 and entered into force on 1 May 2011;
<b>in accordance with</b>	Italian Law n. 240 dated 30 December 2010, Article 22;
<b>having seen</b>	the INAF Regulations for the awarding of research fellowships approved by INAF Administrative Council on 22 June 2011, Resolution n. 06/11 and subsequent modifications and integrations;
<b>considering</b>	it appropriate to issue an announcement of competition for the award of a research fellowship;
<b>given</b>	the availability of finance from fund CRAM 1.05.02.83 “FP7 Ste.Ma.Ge” chapter 1.05.08 - CUP C11J13000010006, of the 2013 INAF budget;

**DECREES**

**Art. 1 – Research project**

A selection based on qualifications, possibly integrated by an interview, is open to award one research fellowship, funded under the project “SteMaGE - Towards an unbiased view of the role of Stellar Mass in Galaxy Evolution” (hereinafter referred to as “SteMaGE”), Grant Agreement n. 326466, and entitled “**Development and calibration of methods to chart the stellar mass in galaxies based on optical/NIR imaging plus imaging spectroscopy and/or FIR imaging**”, category Post-Doc.

The present fellowship is part of the FP7 project “SteMaGE - Towards an unbiased view of the role of Stellar Mass in Galaxy Evolution” aiming at the re-assessment of the galaxy stellar mass function in the local Universe, which is a fundamental constraint for the galaxy evolutionary models. The awarded fellow will contribute to develop and validate spectro-photometric methods to determine galaxy stellar masses using spatially resolved observations on physical scales of ~1kpc. Two possible datasets will be employed (with priority depending on fellow’s skills and inclinations): 1) the CALIFA sample, which provides optical integral field spectroscopy and is complemented by optical and NIR imaging; 2) the

KINGFISH sample, which offers a panchromatic coverage including the far IR from which information about dust can be derived.

The awarded fellow will have to manage and integrate the multiwavelength data sets and carry out a pixel-by-pixel SED analysis to derive the stellar mass maps of the galaxies. The SED analysis will be done partly using well-tested methods, partly with new methods to integrate the information at different wavelengths, which the fellow will contribute to develop and test. Testing of new stellar population synthesis models is also foreseen. The main goals of the fellowship are: validate the methods of stellar mass mapping; complete the analysis of a pilot set of galaxies and provide preliminary calibrations of cheap photometric stellar mass estimators based on the comprehensive spatially resolved analysis for different galaxy types.

The fellow will closely collaborate with the scientific responsible of the “SteMaGE” project, Dr Stefano Zibetti, and participate to the large scientific collaborations from which the data sets originate (CALIFA and/or KINGFISH).

## Art. 2 – Requirements

In order to participate in the selection, applicants must possess, on pain of exclusion:

- PhD degree in Astronomy or Physics or Engineer’s degree awarded by an Italian university or by a foreign university;
- or
- Degree in Astronomy or Physics or Engineer’s degree which would formally entitle for the admission to a doctorate, awarded by an Italian university or by a foreign university, together with at least three years of documented experience in scientific or technological activities.

The following knowledge, skills and experience will be considered as preferential qualifications:

- Experience in the integration of multiwavelength imaging
- Experience with optical (integral field) spectroscopy
- Reduction of NIR imaging data
- Experience with SED analysis of galaxies, especially concerning stellar populations and dust
- Good programming skills

## Art. 3 – Application procedure

Applications must be submitted in English, by e-mail with acknowledgement of receipt to the following email address: [zibetti@arcetri.astro.it](mailto:zibetti@arcetri.astro.it)

Applications are to be submitted by and not after **midday (UT) on July 18, 2013**. Late submissions will not be considered.

Applications that are not consistent with the attached forms (Annexes 1,2) or without the applicant’s signatures will be excluded from the selection procedure.

The application must be delivered reporting in the e-mail subject “**Application for SteMaGE postdoc position at INAF-Osservatorio Astrofico di Arcetri – DD n. 41 /2013**”.

The applicant must state clearly and precisely in the application, under his/her own responsibility:

- name(s) and surname, date and place of birth, nationality, place of residence and address for correspondence;
- that s/he satisfies all the requirements described in article 2 of this Call;
- that s/he 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.

The following documents have to be submitted:

- Annex 1 “Application form”;
- Annex 2 “Curriculum vitae”, **signed and dated** by the applicant, providing evidence of possession of the titles and the skills required to carry out the research and including a list, if applicable, of grants and fellowships hold in the past;
- copy of a valid identity document (ID card or passport);
- list of publications;
- any other qualification, working task, research activity for public and private institutions and publications that the applicant deems appropriate to submit;
- one or two letters of recommendation directly sent by the academic reference to the same e-mail address (zibetti@arcetri.astro.it)

INAF accepts no responsibility for lost applications or documents where this is due to the applicant having provided incorrect contact details or having failed or delayed in notifying any changes to these details.

#### **Art. 4 – Ineligibility and incompatibility with other funding**

Full professors, associate professors and “ricercatori” in Italian universities and employees of Italian research public institutions are all excluded from entering the competition.

The grant cannot be held at the same time with attendance at academic courses as those that formally give access to a doctorate, as well as with attendance at PhD courses with fellowship.

The grant 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.

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 grant, 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-Osservatorio Astrofisico di Arcetri.

Retired persons are not eligible for Research fellowship.

Also excluded from participation are any person who has 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 grant 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 Research fellowship**

The Research fellowship is expected to begin on November 1<sup>st</sup> 2013 and will have the duration of 1 year. The exact initial date could be reasonably delayed if requested by the completion of administrative procedures and/or for the cases mentioned in the art. 10 of this call. A reasonable delay can also be negotiated with the scientific responsible of “SteMaGE”, Dr Stefano Zibetti, on request by the awarded fellow and must be approved by the director of INAF-Osservatorio Astrofisico di Arcetri. In any case (i.e. independent on the starting date) the fellowship will end by the end of the funding period of “SteMaGE”, on February 28, 2017. An extension of 1 year may be possible depending on favourable opinion of the local coordinator of the “SteMaGE” activities, Dr Stefano Zibetti and on funding availability.

In accordance with Italian Law n. 240/2011 the duration of the fellowship, inclusive of possible renewal, will not exceed four years, excluding periods of maternity leave or sick leave, in accordance with current legislation.

#### **Art. 6 – Host Institution**

The fellow will carry out the research at INAF-Osservatorio Astrofisico di Arcetri.

#### **Art. 7 – Salary amount**

The gross annual salary will be 28.000,00 Euro. This amount is net of burdens to be charged to INAF-Osservatorio Astrofisico di Arcetri, social charges and health coverage and will be paid in deferred monthly instalments. Up to 2.500,00 Euro per year will be available for travels.

Italian fiscal and social security rules will be applied.

During the period of obligatory maternity leave the allowance paid by INPS (Italian National Institute for Social Security) is supplemented by INAF up to the total amount of the grant. The period of obligatory maternity leave will not contribute to the duration of the grant foreseen by the contract.

#### **Art. 8 – Selection Committee and selection procedure**

The selection will be performed by a Selection Committee appointed by the Director of INAF-Osservatorio Astrofisico di Arcetri and is composed of 3 members, including the scientist in charge of the project Dr Stefano Zibetti.

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 qualifications and documented experience in scientific or technological activities on the specific subject of the research fellowship. All the stages of the selection procedure (e.g. meetings of the Selection Committee, interviews and so on) can be performed also using electronic devices for the communications.

Applicants selected for the interview will be summoned with 15 days notice by e-mail with acknowledgement of receipt, containing the individual score for qualifications.

The total ranking score is 100 points, of which 70 points is the maximum score for qualifications and 30 points is the maximum score for the interview.

At the end of the selection procedure the Selection Committee will draw up the ranked list.

The approval decree of the selection procedure and the ranked list will be published on the following website: <http://www.arcetri.astro.it>

#### **Art. 9 – Awarding of the fellowship**

The highest ranked candidate will receive written notification of award of the research fellowship.

Within 10 days from receipt of the formal notification of the award she/he must provide a formal declaration of acceptance of the research grant. The declaration will also state that she/he is not subject to any of the exclusion conditions listed in article 4 of this Call.

If the candidate does not provide declaration of acceptance within a time limit of 10 days, she/he will surrender his/her entitlement to the research fellowship and it can be awarded to the next ranked candidate.

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 – Fellowship obligations**

The holder of the fellowship:

- will start the research activity at the date due as for the contract at INAF- Osservatorio Astrofisico di Arcetri, unless prevented by force majeure or exceptional circumstances, of which the Director of INAF- Osservatorio Astrofisico di Arcetri must be timely informed;
- will carry out her/his research activities under the supervision of the scientist in charge of the “SteMaGE” project, Dr Stefano Zibetti, who will also monitor the fellow’s progress;
- is required to issue an activity report when requested by the director and in any case at the end of the first year. The activity report(s) will be subject to approval from the scientist in charge of the

project and will be transmitted to the Director of INAF-Osservatorio Astrofisico di Arcetri. Approval failing, duly reasoned by the scientist in charge, will give INAF- Osservatorio Astrofisico di Arcetri the right to terminate the contract;

- is required to send a written note in case of withdrawal, with at least 30 days notice, otherwise the INAF- Osservatorio Astrofisico di Arcetri is entitled to retain or request the reimbursement of the salary amount corresponding to the notice time-span she/he has failed to send.
- will have to provide him/herself with accident insurance. Copy of the accident insurance contract should be delivered to the Administrative Offices of Arcetri Astrophysical Observatory at the beginning of research activity

The holder of the fellowship who does not carry out her/his research activity regularly without producing justified reasons or lacks repeatedly to fulfil requirements or, according to the evaluation of the local coordinator of the “SteMaGE” activities, Dr Stefano Zibetti, eventually shows evident lack of skills at the planned research activities, will incur the termination of the contract.

Temporary suspensions of the research fellowship are due in case of obligatory maternity leave or in case of illness that lasts 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-Osservatorio Astrofisico di Arcetri.

#### **Art. 11 – Proceeding Responsible**

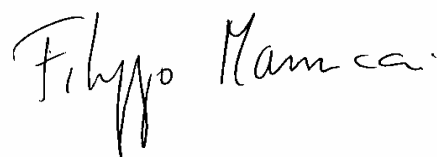
The Responsible of this Call proceedings is Drs. Serena Donati (email: donati@arcetri.inaf.it).

#### **Art. 12 – Applicable regulation**

The INAF- Osservatorio Astrofisico di Arcetri 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, the INAF- Osservatorio Astrofisico di Arcetri shall act in compliance with the regulations in force concerning Italian public selection procedures, when applicable by analogy.

Firenze, 21th June, 2013

Dr. Filippo Mannucci



# ANNEX 1

## APPLICATION FORM

To  
the Director of INAF-.....

I, THE UNDERSIGNED,

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

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

Date of birth (dd/mm/yy) .....

Nationality .....

Gender .....

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 **D.D n. 41/2013** for the appointment of one research fellowship entitled: “Development and calibration of methods to chart the stellar mass in galaxies based on optical/NIR imaging plus imaging spectroscopy and/or FIR imaging”.

### REQUEST

to apply for the above mentioned fellowship, and to this end, 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 my own responsibility and in accordance with articles 46 and 47 of Italian Presidential Decree 445/2000,

- ☐ that I hold the following Research Doctorate (PhD) ..... awarded by..... on date.....  
Title of thesis .....
- ☐ that I hold the following educational qualifications....., Date.....  
awarded by.....
- ☐ that I have a professional level of knowledge of English language;
- ☐ that I have ..... years of documented experience in scientific or technological activities;
- ☐ 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;

☐ that I have previously received a research awards as per art. 22, Italian Law 240/2010 and, in particular I have been the recipient of<sup>1</sup>:

- a research fellowship entitled .....  
at (name of the institution).....  
beginning.....ending.....total months .....
- a research fellowship entitled .....  
at (name of the institution).....  
beginning.....ending.....total months .....
- a research fellowship entitled .....  
at (name of the institution).....  
beginning.....ending.....total months .....

☐ that I am not a retired person;

☐ that I am aware that, under art. 22 Italian Law 240/2010, the research fellowship:

- cannot be held contemporarily with attendance at academic courses, “laurea specialistica” academic courses, and “laurea magistrale” academic courses, as well as with attendance at PhD courses with fellowship;
- 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 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:

- Attachment 2 “Curriculum vitae”, **signed and dated** by the applicant, providing evidence of possession of the skills required to carry out the research and including a list, if applicable of grants and fellowships hold in the past;
- copy of a valid identity document (ID card or passport);
- list of publications;
- any other qualification, working task, research activity at public and private institutions and publications that the applicant deems appropriate to submit;
- copy of the Degree which would formally entitle to embark on a doctorate, only in case this is released by a non-Italian institution;
- copy of the PhD certificate or of the equivalent foreign academic qualification, only in case this is released by a non-Italian institution.

... signed letters of recommendation are sent to the email address [zibetti@arcetri.astro.it](mailto:zibetti@arcetri.astro.it) as pdf attachment directly by the following academic reference(s): (Title/Name/Institution/email address) .....

Date

Signature

<sup>1</sup> Indicate the number of months for which the award was used and the name of the institution granting the award, e.g. INAF-Observatory of Turin, please provide details of each award, for example, if you have had two awards of 24 months each at the same institution indicate these as two separate awards on two different lines.

## **ANNEX 2**

### **CURRICULUM VITAE**

I, THE UNDERSIGNED,

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 28<sup>th</sup> December 2000 (“SELF-EXECUTED CERTIFICATE AND SELF-EXECUTED AFFIDAVIT”)

THAT THE CONTENT OF THE ATTACHED “CURRICULUM VITAE” IS TRUE

Date

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Signature

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