

# ***Istituto Nazionale di Astrofisica***

## **OSSERVATORIO ASTROFISICO DI TORINO**

*D.D. n. 44/2013*

*Selection procedure based on qualification and possible interview for one postdoctoral research fellowship (Assegno di Ricerca – Tipologia A POST-DOC) as part of the “ASTRI –Astrofisica con Specchi a Tecnologia Replicante Italiana” flagship project.*

### **THE DIRECTOR OF THE “OSSERVATORIO ASTROFISICO DI TORINO”**

<b>Taking into account</b>	the “Decreto Legislativo 4 giugno 2003, n. 138 - Riordino dell’Istituto Nazionale di Astrofisica (INAF)” published on G. U. n.140, 19 June 2003;
<b>Taking into account</b>	the INAF “Regolamento di organizzazione e funzionamento” as of 24 Oct 2004;
<b>Taking into account</b>	the INAF “Regolamento sull’amministrazione, sulla contabilità e sull’attività contrattuale” as of 24 Oct 2004;
<b>Taking into account</b>	the INAF “Personnel Rules and Regulations” as of 1 Jan 2005;
<b>Taking into account</b>	the INAF Statute, approved on 7 March, 2011, and effective as of 1 May 2011;
<b>Taking into account</b>	Italian Law n. 240, 30 Dec 2010;
<b>Taking into account</b>	the INAF Regulations for the awarding of research fellowships approved by the Administrative Council on 22 June 2011, Resolution n. 06/11;
<b>Considering</b>	the obligation of the “beneficiary”, namely INAF – Astrophysical Observatory of Torino, to ensure the necessary scientific autonomy to Dr. P. Vallania ( <i>local coordinator of the CTA project</i> ) in particular as regards: (a.) the selection of other <i>team members</i> , hosted and engaged by the <i>beneficiary</i> (OATO) or other legal entities, in line with profiles needed to conduct the research, including the appropriate advertisement;

### **DECREES**

#### **Art. 1 – Research project**

##### **Osservatorio Astrofisico di Torino**

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A selection based on titles and qualifications, possibly integrated by an interview, is open to award one research fellowship, "Assegno di Ricerca – Tipologia A POST-DOC", entitled "**Characterization and optimization of the highest energy Cherenkov telescope array for the CTA project by means of Monte Carlo simulations**".

CTA is a world-wide challenging project aimed to build two huge arrays of Cherenkov telescopes in both hemispheres, covering the whole sky in the energy range from few tens of GeV to one hundred TeV and beyond. The expected sensitivity is roughly ten times better than that of the existing arrays (Magic, Hess, Veritas) in the core energy region (~1 TeV) with an improvement of one order of magnitude of the number of the discovered gamma-ray sources.

The successful applicant will perform research in collaboration with Dr. Piero Vallania and the other members of the CTA program, specifically on:

- Implementation of the ASTRI-INAF Small Size Telescope features into the detector simulation code
- Development of a reconstruction code for the simulated events for different configurations (single telescope and array)
- Production of a simulated events database available and profitable to the whole Collaboration
- Analysis of simulated events for performance study and optimization

### **Art. 2 – Requirements**

Applicants must fulfill the following requirements, under threat of being excluded, in order to participate in the selection:

- PhD degree in Astronomy or Physics or equivalent, obtained from an Italian or foreign University or expected to be obtained before December 2013;
- Excellent command of the English language

### **Art. 3 – Application procedure**

Applications must be submitted in English, **in electronic form only** (PDF), by e-mail with acknowledgement of receipt to the attention of Dr. Piero Vallania to the address: p.vallania@ifsi-torino.inaf.it and in copy (Cc) to:roma@ifsi-torino.inaf.it. Only applications received **within 20/09/2013** will be given full consideration. Please quote reference "CTA Postdoctoral Fellowship" on all correspondence.

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**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) Complete Application Form, as provided in attachment to this announcement;
- (2) Curriculum vitae, **signed and dated by the applicant**, detailing on past experience 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);
- (6) Any other qualification, working task, research activity for public and private institutions and publications that the applicant deems appropriate to submit.

**C. The applicant should also arrange to have at least one letter of reference by a scientist familiar with his/her work, sent directly to the same e-mail address.**

In case he/she is awarded the postdoctoral fellowship the successful candidate will have to provide the OA-Torino administration, before 31 December 2013, with:

- copy of the PhD certificate or of equivalent foreign academic qualification.

INAF accepts no responsibility for the loss of applications or documents, where due to the applicant having provided incorrect contact details or having failed or delayed in notifying changes of these details, or to problems with postal delivery not due to INAF.

### **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.

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The 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. 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-TORINO, where most part of the research activity is carried out.

When formally accepting the fellowship, the successful candidate will issue a declaration of absence of inadmissible cumulating of fellowships/fellowships.

Retired persons are not eligible for Research 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 Research fellowship**

The Research fellowship is awarded for **12 months**. Upon positive assessment by the responsible of the research project, Dr. Piero Vallania, and availability of funding the research fellowship can be renewed. In accordance with Italian Law n. 240/2010 the total duration of the fellowship will not in any case exceed four years, (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. 6 – Host Institution**

The fellow will carry out the research at the Torino premises of INAF Osservatorio Astrofisico di Torino, Via Pietro Giuria 1, 10125 Torino, where the CTA program will be located.

### **Art. 7 – Salary**

The gross yearly salary for this position will be **28,000.00 (Twentyeight-thousand) Euro**. This amount is net of burdens to be charged to INAF/OA-Torino 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

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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.

Insurance cover for accidents and civil liability must be provided by the fellowship holder.

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

The selection will be performed by a Selection Committee appointed by the Director of INAF/OA-Torino 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 candidate 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.

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

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

The highest-ranked candidate 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 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.

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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 research fellowship is **November 2013**. The holder of the fellowship:

- will start the research activity on due date, as for the contract with INAF/OA-Torino, unless prevented by force majeure or exceptional circumstances, of which the Director of INAF/OA-Torino must be timely informed;
- will carry out her/his research activities under the supervision of the Principal Investigator of the project, Dr. Piero Vallania, who will also monitor the fellow's progress;
- will provide copy of the accidents and civil liability insurance cover, done at her/his own expense;
- 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-Torino 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-Torino 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, 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-Torino.

### **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 Employee**

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The Responsible Person for this Job announcement processing is Dr. Piero Vallania.

## **Art. 13 – Applicable regulation**

INAF/OA-Torino 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-Torino 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-Torino website:

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

Torino, 25 July 2013

The Director  
(Dr. Alessandro Capetti)



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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. Piero Vallania  
INAF – Osservatorio Astrofisico di Torino  
Via Pietro Giuria 1  
10125 Torino (TO)  
ITALY

**p.vallania@ifsi-torino.inaf.it**

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 the purposes of the present selection procedure.

I, THE UNDERSIGNED,

having read the Call for applications for an “Assegno di Ricerca” (research fellowship) entitled:

**“Characterization and optimization of the highest energy Cherenkov telescope array for the CTA project by means of Monte Carlo simulations”.**

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

### **Osservatorio Astrofisico di Torino**

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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 will obtain it on ..... (before December 2013)

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

1. a research fellowship

entitled.....,

at (name of the

institution).....,

beginning.....ending.....total  
months.....

2. a research fellowship

entitled.....,

at (name of the

institution).....,

beginning.....ending.....total months.....

3. a research fellowship

entitled.....,

at (name of the

institution).....,

beginning.....ending.....total months.....;

- that I am not under any similar contract for research activities at INAF or any other Italian or foreign institution;

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- 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 of a “Laurea Specialistica”, or a “Laurea Magistrale” degrees, as well as with attendance of 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 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 on past experience on the subject of this fellowship;
- **Statement of research interests and previous qualifications;**
- **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 a valid identity document (ID card or passport);**

**To be sent separately, at least one reference letter by a scientist 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 fullfill 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 PLEASE MAIL IT TO [p.vallania@ifs-torino.inaf.it](mailto:p.vallania@ifs-torino.inaf.it))

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 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

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Signature

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