

#### SUMMARY OUTLINE OF THE NOTICE OF COMPETITION

### Subject:

Public selection procedure, based on qualifications and possible interview, for the awarding of a post-doc research fellowship, lasting two years, for the needs of the project "NAOMY: Near-infrared dark Accretion Outbursts in Massive Young stellar objects".

## Art.1: Description of the research activity to be carried out

The research activity will be carried out in the framework of the NAOMY (Near-infrared dark Accretion Outbursts in Massive Young stellar objects) project. In particular, the selected candidate will study accretion outbursts from massive young stellar objects (MYSOs). The post-doctoral researcher is expected to analyse and publish integral-field spectroscopic data acquired with NIRSpec and MIRI/MRS at the James Webb Space Telescope (NAOMY-J; <a href="https://ui.adsabs.harvard.edu/abs/2021jwst.prop.1906C/abstract">https://ui.adsabs.harvard.edu/abs/2021jwst.prop.1906C/abstract</a>), as well as with other state-of-the-art facilities (e. g., ESO/VLT and ESO/VLTI, LBT). The aim of this programme is to study accretion bursts from MYSOs, deriving the key accretion parameters, origin, as well as impact on the source and its surrounding environment. The NAOMY project is part of a larger international collaboration which includes several institutes in Italy (e.g. INAF-OAC, INAF-Arcetri, INAF-Cagliari), Europe (e. g., MPIA, Tautenburg Observatory, Univ. Vienna), USA (e. g., NROA, Univ. Toledo, STScI), and Japan (NAOJ). Funding for travelling within nodes, for conferences and publications are available.

The scientific referent of the research fellowship is Dr. Alessio Caratti o Garatti.

#### **Art.2: Admission requirements**

In order to be admitted to the selection procedure governed by this call, the possession of one of the following qualifications is required:

- PhD in Astronomy or Astrophysics or equivalent, issued by a Higher Institute or University (including foreign); [5] or
- Master degree (or 2nd level Laurea degree, if issued by an Italian University) in Astronomy or Astrophysics or equivalent qualification, issued by a Higher Institute or University (including

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foreign), together with at least three years of documented experience in scientific or technological activity after graduation. The equivalence will be established by the selection board according to criteria defined for the purposes of the selection procedure.

A good knowledge of the English language is required.

The following skills and competences will be considered preferential requirements:

- Knowledge of star formation and previous works on young stellar objects. Previous work in massive star formation would be an asset.
- Expertise in data analysis of spectroscopic data, in particular in the IR regime. Previous experience in integral-field spectropy would be an asset.
- Experience with one or more programming languages (e.g., Python, IDL) and data analysis tools (e. g., IRAF, Python, CASA).

## Art.3: Submission

Applications must be submitted in one of the following ways:

- by certified e-mail, including all required documents in PDF inafoanapoli@pcert.postecert.it. Only e-mail PEC from one of the operators indicated in the list of the AgID Digital Italy Agency pursuant to Presidential Decree No. 68 of 11/02/2005 is considered valid; attachments must be in PDF format. Subject must be: "Assegno di Ricerca NAOMY: Near-infrared dark Accretion Outbursts in Massive Young stellar objects"
- by regular electronic mail (e-mail) to <u>concorsi@oacn.inaf.it</u>; attachments must be in PDF format.
   Subject must be: "Assegno di Ricerca NAOMY: Near-infrared dark Accretion Outbursts in Massive Young stellar objects"
- registered mail with return receipt to the National Institute of Astrophysics Osservatorio Astronomico di Capodimonte Via Moiariello, 16 80131 Napoli;
- authorised express courier to INAF Osservatorio Astronomico di Capodimonte Via Moiariello, 16 80131 Napoli.

Applications must be received no later than **January 15 2023 - 23:59** CET (not postmarked). Late applications will not be considered.

The applicants might also arrange a **maximum of two reference letters**, to be sent directly by the referees to the address: **alessio.caratti@inaf.it** by **January 15 2023**, reporting in the subject the indication of the related procedure (LEWIS post-doc fellowship) and the name of the candidate. Letters received after this deadline will not be considered.

Aware that false declarations against the law are punishable for and that the Administration can proceed to verify the veracity of the declarations made, the candidate must clearly and precisely declare:

- name and surname, date and place of birth, nationality, residence and address for sending correspondence,
- to possess all the requisites described in Art. 2 of this announcement;

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P.I.: 06895721006 — C.F.: 97220210583 Salita Moiariello 16, I — 80131 Napoli tel. +39.081.5575511 fax +39.081.5575433 Furthermore, the candidate, under his own responsibility, must declare in the application that:

- they have not received criminal convictions or have criminal proceedings in progress, specifying, if not, which convictions or proceedings exist;
- whether they have benefited or still benefit from other research contracts or fellowships from other public or private institutes and for what duration.

The lack of the declarations mentioned above will result in the exclusion from the selective procedure for incomplete application.

For the purposes of selection, the candidate can self-certify the possession of academic qualifications through Annex 1. In addition, non-EU citizens residing outside Italy, if successful, must produce originals or suitably certified copies of academic qualifications obtained outside Italy.

To participate, the following documents must be presented:

- Complete Application Form, as provided in the Annex 1 of this announcement;
- Annex 2 substitutive declaration of certification substitutive declaration of deed of notoriety (art. [5]] 19 46 47 of Presidential Decree 28 December 2000, n. 445);
- "Curriculum vitae", signed and dated by the candidate, which also indicates any scholarships and sepresearch grants previously held or in progress;
- Copy of a valid identity document;
- List of publications;
- Any other qualification, work experience, research activity at private or public institutions and step publications that the candidate deems appropriate to present;
- List of all documents presented. [SEP]

Candidates are admitted to the selection with reserve and may, at each stage, be notified of their exclusion from the selection for the following reasons:

- the application was submitted after the deadline;
- lack of demand;
- lack of a copy of a valid identity document;
- lack of the requisites indicated in art. 2. SEP

If the reasons for exclusion are ascertained after the conclusion of the selection procedure, the candidate will lose all rights to participate in the selection; similarly, we will proceed if the production of false declarations is ascertained.

INAF declines all responsibility for loss of the application or documentation when this derives from the fact of the applicant for having provided incorrect contact details or for having failed or delayed notification of any changes.

## Art.4: Duration of the research fellowship

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The duration of the fellowship is two years, renewable if necessary subject to the assessment of the needs of the research program, subject to a reasoned request from the Scientific Responsible and, in any case, within the limits provided for in article 22, paragraph 3, of Law 240/2010 and subsequent amendments and subsequent amendments and additions. The financial coverage of the position is currently granted for two years.

## Art.5: Location of the research grant

The location of the study and research activity will be the Astronomical Observatory of Capodimonte. The candidate will be able to participate in a transfer abroad.

## Art.6: Amount of the research grant

The total amount of the research grant is  $\in$  64,000.00 (annual gross salary is  $\in$  32,000.00); this amount is to be understood net of the charges to be borne by the Astronomical Observatory of Capodimonte and will be paid in deferred monthly instalments. The selected candidate will have to provide at his own expense to take out an accident insurance policy that he will have to show when the report is formalised.

Napoli, December, 5 th 2022

Il Direttore

Dott.ssa. Marcella Marconi

# ANNEX 1 APPLICATION SAMPLE

To the Director of the Astronomical Observatory of Capodimonte
Via Moiariello 16
80131 Napoli (NA)

The undersigned (married candidates must indicate their maiden na	me),
born in (City/State/Country)	
, on, and resident in (Permanent residence add (number/street/town/postal code/Country)	dress
applies	
to be admitted to participate in the selection procedure based on qualifications and interview, for the awar of an annual research grant for the project entitled "NAOMY: NIR-dark Accretion Outburst Massive Young stellar objects", announced with Directorial Determination no of the	-
To this end, under one's own responsibility and aware that the declarations made and signed in this application that the value of a substitutive declaration of certification and/or deed of notoriety pursuant to art. 46 and of Presidential Decree no. 445/2000 and that in the case of falsification of documents or false declarations sanctions provided for by art. 76 of the aforementioned Presidential Decree,	d 47
declares	
<ol> <li>to be an Italian citizen or to be a citizen of the following State;</li> <li>to benefit from civil and political rights and to be registered in the electoral roll of the municip of</li></ol>	pient t, the ware
<ul> <li>5. to be in possession of no years of documented experience in scientific, technologica management activities, gained at from as of, carrying out the follow activities</li></ul>	wing

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dependence on a public administration;

- 7. not to have been dispensed and or dismissed from another job employed by a public administration for persistent, insufficient performance;
- 8. not to have been declared forfeited from another employment employed by a public administration, pursuant to article 127, paragraph 1, letter d), of the Decree of the President of the Republic of January 10, 1957, number 3, for having obtained it by producing false documents or documents vitiated by non-remediable disability or by fraudulent means;
- 9. not to be the holder of other scholarships, research grants, research contracts awarded for any reason;

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from the	to the	

- 1. to have adequate knowledge of the English language;
- 3. to have read and understood the rules contained in the selection announcement;
- 4. to be aware of the fact that, pursuant to art. 22 Italian law 240/2010, the research grant:
  - o cannot be combined with participation in specialist degree courses, master's degree courses, as well as with participation in research doctorate courses with scholarship;
  - o cannot be combined with other scholarships of any kind, except those awarded with the aim of integrating the training or research activity of the research fellow through a period spent abroad;
  - o cannot allow the accumulation of income from work activities, even part-time, carried out continuously.

The undersigned attaches the following documentation:

- 1. Curriculum vitae et studiorum (CV) dated and signed;
- 2. Annex 2 substitutive declaration of certification or substitutive declaration of deed of notoriety (art. 19 46 47 of Presidential Decree 28 December 2000, n. 445);
  - 3. Double-sided copy of a valid identity document;
  - 4. List of publications;
- 5. Other qualifications, documents or publications deemed useful for the purposes of the evaluation;
  - 6. List of all documents submitted.

The undersigned expresses his her consent so that the personal data provided can be processed, in compliance with Legislative Decree 30 June 2003 n. 196 as amended by the "Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 concerning the protection of individuals with regard to the processing of personal data, as well as the free circulation of such data and repealing Directive 95 / 46 / EC "(" General Data Protection Regulation"), for the obligations related to this procedure.

(Place and	date)

(Signature)

Note

(1) Otherwise, indicate any criminal convictions, the details of the related verdicts (even in cases where no mention has been granted in the certificates issued by the criminal record at the request of private individuals or amnesty, pardon, pardon, forgiveness judicial or rehabilitation), the measures applied and any pending criminal proceedings.

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## FAC-SIMILE (ONLY FOR EU CITIZENS)

SUBSTITUTE DECLARATIONS OF NOTORY ACT (Art. 47 D.P.R. n. 445/2000)
(in this case, attach a photocopy of a valid identity document)
check next to the declaration of interest
The undersigned:
LAST NAME
(for married women indicate the maiden name)
NAME
ITALIAN TAX IDENTIFICATION NUMBER (IF AVAILABLE)
BORN IN (PROVINCE) ON
RESIDENT IN (PROVINCE)
ADDRESS ZIP code
PHONE,
DECLARES
under his/her own responsibility pursuant to art. 38, 46 and 47 of the Presidential Decree n. 445 of 28/12/2000, aware of the criminal penalties for false hypotheses and false declarations made pursuant to art. 76 of the same Presidential Decree:
1. to be in possession of the following qualification, required as a qualification for admission to the procedure:
(In the event that the qualification has not been obtained in Italy and has not been
declared equivalent in accordance with current Italian legislation), to have taken the following exams, with any related evaluation and that the legal duration of the course is years

1. to be in possession of the qualifications and to have the experience / knowledge indicated

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in the attached curriculum;

not to be the holder of other scholarships, research grants, research contracts awarded for any reason

OR

		y Institute
1) from	to	
2) from	to	
	llected will be proce	to and for the purposes of Legislative Decree ssed, even with information technology tools, ade.
I enclose an unauthenticated photoc	copy of a valid ident	ity document.
Place and date	The de	clarant