

## Corrigendum Notice

Referring to the Announcement n. 20543 of November 28<sup>th</sup> 2018 related to 6 (six) positions for research and development activities on scientific computing promoting innovative solutions for LHC experiments and to face big data processing for particle physics with future technologies, we inform you that the following sentences:

a)

*“Applicants must have a master’s degree in Computing, Physics and Engineering or equivalent qualification, obtained not later than eight years before the application deadline (i.e. on or after **January 14<sup>th</sup>, 2011**), with at least 24 months of proven activities in the field of scientific computing after the master’s degree award”.*

is replaced with the following one:

*“Applicants must have a master’s degree in Computing, Physics and Engineering or equivalent qualification, obtained **no more than eight years prior to January 14<sup>th</sup>, 2019**, with at least 24 months of proven activities in the field of scientific computing after the master’s degree award”.*

b)

*“Applications, in electronic form, and reference letters must be sent to INFN not later than **January 14<sup>th</sup>, 2019** (11:59 a.m. CET) through the website <https://reclutamento.infn.it/ReclutamentoOnline/> “*

is replaced with the following one:

*“Applications, in electronic form, and reference letters must be sent to INFN not later than **February 14<sup>th</sup>, 2019** (11:59 a.m. CET) through the website <https://reclutamento.infn.it/ReclutamentoOnline/> “*

c)

- “- a statement of research interests (a summary of research accomplishments and future direction and potential of the work of the candidate at the selected INFN sites);*  
*- a curriculum vitae;*  
*- a publication list, with a selection of the 10 most significant publications;*  
*- the names and e-mail address of three referees who must upload their reference letter not later than **January 14<sup>th</sup>, 2019** (11:59 a.m. CET)”*

is replaced with the following one:

- “- a statement of research interests (a summary of research accomplishments and future direction and potential of the work of the candidate at the selected INFN sites);*  
*- a curriculum vitae;*  
*- a publication list, with a selection of the 10 most significant publications;*  
*- the names and e-mail address of three referees who must upload their reference letter not later **than February 14<sup>th</sup>, 2019** (11:59 a.m. CET)”*

2) We inform you that the following sentence, in the ANNEX 1:

a)

*RESEARCH PROGRAMS*

*“The research programs of the candidates must be focused on the topics listed below:*

- *Innovative Workflow and Data Management solutions for Large Scale science: large datasets, large workloads, heterogeneous platforms*
- *Innovative Workflow and Data Management solutions for trigger-less data acquisition*
- *High performance data analysis and algorithms: trigger and reconstruction algorithms, use of hardware accelerators and modern architectures*
- *Porting and optimization of scientific applications on multi-GPU parallel machines*
- *Machine Learning, deep learning and predictive analysis for data analysis and detector characterization in scientific experiments*
- *Investigation and study of quantum computing techniques for application in experimental and/or theoretical particle physics”*

is replaced with the following one:

*RESEARCH PROGRAMS*

*“The research programs of the candidates must be focused on the topics listed below:*

- *Innovative Workflow and Data Management solutions for Large Scale science: large datasets, large workloads, heterogeneous platforms*
- *Innovative Workflow and Data Management solutions for trigger-less data acquisition*
- *High performance data analysis and algorithms: trigger and reconstruction algorithms, use of hardware accelerators and modern architectures*
- *Porting and optimization of scientific applications on multi-GPU parallel machines*
- *Machine Learning, deep learning and predictive analysis for data analysis and detector characterization in scientific experiments*
- *Investigation and study of quantum computing techniques for application in experimental and/or theoretical particle physics*
- ***Machine Learning and deep learning methods for online data selection”.***

**DISPOSIZIONE N. 20793**

**Il Presidente dell'Istituto Nazionale di Fisica Nucleare**

- vista la precedente disposizione n. 20543 del 28 novembre 2018, con la quale è stato emesso un bando di concorso per il conferimento di n. 6 borse di studio post laurea, della durata di un anno e rinnovabili per un ulteriore anno, da attribuire a laureati in Informatica, Fisica e Ingegneria, per soggiorni di studio e ricerca presso le Sezioni, Laboratori Nazionali e Centri dell'INFN;
- visto in particolare che nel suddetto bando il termine di presentazione delle domande, tramite procedura telematica, è scaduto alle ore 11.59 a.m. CET del giorno 14 gennaio 2019;
- vista la richiesta del Presidente della Commissione Scientifica Nazionale 1 (CSN1) del 17 gennaio 2019 che chiede di integrare, nel bando 20543 del 28 novembre 2018, i programmi di ricerca con il tema: *"Machine Learning and deep learning methods for online data selection"*, in considerazione del fatto che tale programma consente di analizzare e selezionare i dati prodotti a livello dei rivelatori, permettendo un'analisi veloce e garantendo la scrittura delle sole informazioni utili a raggiungere il risultato di fisica finale, e di riaprire il termine ultimo, per la presentazione delle domande di partecipazione al concorso fino alle ore 11.59 a.m. CET del giorno 14 febbraio 2019, per favorire la partecipazione di candidati con le competenze necessarie al programma di ricerca aggiunto alla selezione suddetta;
- riconosciuta la validità della richiesta e ravvisata la necessità di provvedere;

**DISPONE**

1. di rettificare nella disposizione n. 20543 del 28 novembre 2018 le parti del testo di seguito elencate:

a)

*"Applicants must have a master's degree in Computing, Physics and Engineering or equivalent qualification, obtained not later than eight years before the application deadline (i.e. on or after **January 14<sup>th</sup>, 2011**), with at least 24 months of proven activities in the field of scientific computing after the master's degree award".*

sostituendola con il seguente:

*"Applicants must have a master's degree in Computing, Physics and Engineering or equivalent qualification, obtained **no more than eight years prior to January 14<sup>th</sup>, 2019**, with at least 24 months of proven activities in the field of scientific computing after the master's degree award".*

b)

*"Applications, in electronic form, and reference letters must be sent to INFN not later than **January 14<sup>th</sup>, 2019** (11:59 a.m. CET) through the website <https://reclutamento.infn.it/ReclutamentoOnline/> "*

sostituendola con il seguente:

*"Applications, in electronic form, and reference letters must be sent to INFN not later than **February 14<sup>th</sup>, 2019** (11:59 a.m. CET) through the website <https://reclutamento.infn.it/ReclutamentoOnline/> "*

c)

- “- a statement of research interests (a summary of research accomplishments and future direction and potential of the work of the candidate at the selected INFN sites);*  
*- a curriculum vitae;*  
*- a publication list, with a selection of the 10 most significant publications;*  
*- the names and e-mail address of three referees who must upload their reference letter not later than **January 14<sup>th</sup>, 2019** (11:59 a.m. CET)”*

sostituendola con il seguente:

- “- a statement of research interests (a summary of research accomplishments and future direction and potential of the work of the candidate at the selected INFN sites);*  
*- a curriculum vitae;*  
*- a publication list, with a selection of the 10 most significant publications;*  
*- the names and e-mail address of three referees who must upload their reference letter not later **than February 14<sup>th</sup>, 2019** (11:59 a.m. CET)”*

2) di rettificare nell'allegato 1 alla disposizione n. 20543 del 28 novembre 2018 la parte di seguito riportata:

a)

#### RESEARCH PROGRAMS

*“The research programs of the candidates must be focused on the topics listed below:*

- Innovative Workflow and Data Management solutions for Large Scale science: large datasets, large workloads, heterogeneous platforms*
- Innovative Workflow and Data Management solutions for trigger-less data acquisition*
- High performance data analysis and algorithms: trigger and reconstruction algorithms, use of hardware accelerators and modern architectures*
- Porting and optimization of scientific applications on multi-GPU parallel machines*
- Machine Learning, deep learning and predictive analysis for data analysis and detector characterization in scientific experiments*
- Investigation and study of quantum computing techniques for application in experimental and/or theoretical particle physics”*

sostituendola con il seguente:

#### RESEARCH PROGRAMS

*“The research programs of the candidates must be focused on the topics listed below:*

- Innovative Workflow and Data Management solutions for Large Scale science: large datasets, large workloads, heterogeneous platforms*
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- High performance data analysis and algorithms: trigger and reconstruction algorithms, use of hardware accelerators and modern architectures*



Istituto Nazionale di Fisica Nucleare  
IL PRESIDENTE

- *Porting and optimization of scientific applications on multi-GPU parallel machines*
- *Machine Learning, deep learning and predictive analysis for data analysis and detector characterization in scientific experiments*
- *Investigation and study of quantum computing techniques for application in experimental and/or theoretical particle physics*
- *Machine Learning and deep learning methods for online data selection”.*

SF/VC/ADV

ISTITUTO NAZIONALE DI FISICA NUCLEARE  
II PRESIDENTE  
(Prof. Fernando Ferroni)<sup>1</sup>

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<sup>1</sup> Documento informatico firmato digitalmente ai sensi della legge 241/90 art. 15 c 2, del testo unico D.P.R. 28 dicembre 2000, n. 445, del D.Lgs. 7 marzo 2005, n. 82, e norme collegate, il quale sostituisce il testo cartaceo e la firma autografa



## Corrigendum Notice

Referring to the Announcement n. 20543 of November 28<sup>th</sup> 2018 related to 6 (six) positions for research and development activities on scientific computing promoting innovative solutions for LHC experiments and to face big data processing for particle physics with future technologies, we inform you that the following sentence:

*“Applicants must have a master’s degree in Computing, Physics and Engineering or equivalent qualification, obtained not later than eight years before the application deadline (i.e. on or after **January 14<sup>th</sup>, 2011**), with at least 24 months of proven activities in the field of scientific computing after the master’s degree award.”*

is replaced with the following one:

*“Applicants must have a master’s degree in Computing, Physics and Engineering or equivalent qualification, obtained **NO MORE** than eight years **PRIOR TO THE CALL** deadline (i.e. on or after **January 14<sup>th</sup>, 2011**), with at least 24 months of proven activities in the field of scientific computing after the master’s degree award”.*



*Announcement n. 20543*

FELLOWSHIPS IN SCIENTIFIC COMPUTING

The 2018/2019 INFN Fellowship Program offers 6 (six) positions for research and development activities on scientific computing mainly devoted to promote innovative solutions for LHC experiments and to face big data processing for particle physics with future technologies.

Applicants must have a master's degree in Computing, Physics and Engineering or equivalent qualification, obtained not later than eight years before the application deadline (i.e. on or after **January 14<sup>th</sup>, 2011**), with at least 24 months of proven activities in the field of scientific computing after the master's degree award.

The time limit indicated above may be extended in case of:

- Maternity (18 months for each child born before or after the master's degree award, up to a maximum of 4.5 years);
- Paternity (effective time of leave taken for each child born before or after the master's degree award, up to a maximum of 4.5 years);
- National Service (effective time of leave taken after the master's degree award);
- Long-term illness, i.e. over 90 days, (effective time of leave taken for each incident occurred after the master's degree award).

In any case, the total elapsed time since the award of the master's degree should not be longer than twelve years and six months. The reasons for an extension of the time limit must be duly documented only in case of a successful application. Failure in providing the appropriate documentation will result in the ineligibility for the appointment.

The annual gross salary is € 40.000,00. Each fellowship is initially granted for one year and may be extended to a second year. Travel tickets to and from INFN sites will be reimbursed at the beginning and at the end of the fellowship; also lunch tickets will be provided for working days.

Applications, in electronic form, and reference letters must be sent to INFN not later than **January 14<sup>th</sup>, 2019** (11:59 a.m. CET) through the website <https://reclutamento.infn.it/ReclutamentoOnline/>

The applications must include the research topic(s) of interest, the preferred INFN site(s) – two at the most, chosen among those listed in Annex 1 – and:

- a statement of research interests (a summary of research accomplishments and future direction and potential of the work of the candidate at the selected INFN sites);
- a curriculum vitae;
- a publication list, with a selection of the 10 most significant publications;
- the names and e-mail address of three referees who must upload their reference letter not later than **January 14<sup>th</sup>, 2019** (11:59 a.m. CET)

Candidates will be excluded from participation in this call if they submit their application later than the deadline indicated.

Incomplete applications (lack of information or missing files) will not be considered.

At the end of the selection process, the results of the selection will be published at INFN website (Job Opportunities – Details of the announcement), the candidates will be informed by e-mail about the result of their application. Successful candidates will then receive an official communication from the INFN administration offices. The appointed fellows should start their fellowships not later than September 1<sup>st</sup> 2019; special requests to defer the starting date can be considered.

ISTITUTO NAZIONALE DI FISICA NUCLEARE  
II PRESIDENTE

SF/VC/ADV

(Prof. Fernando Ferroni)<sup>1</sup>

28/11/2018



Digitally signed by FERRONI  
FERNANDO  
C=IT  
O=ISTITUTO NAZIONALE DI  
FISICA NUCLEARE

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<sup>1</sup> Documento informatico firmato digitalmente ai sensi della legge 241/90 art. 15 c 2, del testo unico D.P.R. 28 dicembre 2000, n. 445, del D.Lgs. 7 marzo 2005, n. 82, e norme collegate, il quale sostituisce il testo cartaceo e la firma autografa  
Direzione Gestione e Finanza



## *ANNEX I*

### *INFN SITES*

#### *INFN Laboratories:*

Laboratori Nazionali di Frascati (Roma), Laboratori Nazionali del Gran Sasso (L'Aquila), Laboratori Nazionali di Legnaro (Padova), Laboratori Nazionali del Sud (Catania);

#### *INFN CNAF (Bologna)*

#### *INFN Sections in the Universities of:*

Bari, Bologna, Cagliari, Catania, Ferrara, Firenze, Genova, Lecce, Milano, Milano Bicocca, Napoli, Padova, Pavia, Perugia, Pisa, Roma La Sapienza, Roma Tor Vergata, Roma Tre, Torino, Trieste, TIFPA (Trento Institute for Fundamental Physics and Applications).

### *RESEARCH PROGRAMS*

The research programs of the candidates must be focused on the topics listed below:

- Innovative Workflow and Data Management solutions for Large Scale science: large datasets, large workloads, heterogeneous platforms
- Innovative Workflow and Data Management solutions for trigger-less data acquisition
- High performance data analysis and algorithms: trigger and reconstruction algorithms, use of hardware accelerators and modern architectures
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