



## **NOTICE PPGFIS 001/2022 PROCESS SELECTIVE FOR TICKET AT THE COURSE IN MASTER'S DEGREE ACADEMIC IN PHYSICAL – CONTINUOUS FLOW**

The Graduate Program in Physics (PPGFis) of the Federal University of Rio Grande do Sul (UFRGS) become public O regulation of process selective in flow continuous, The leave in 16 in April in 2022, for ticket on the course Master's in Physical.

### **1. GIVES SUBSCRIPTION**

You can apply with a diploma, or a graduate in Physics or a similar area. the diploma it will be required at registration.

To interested in this process in selection shall to have accomplished the Exam Unified in Postgraduate (EUF) - <https://www.ufrgs.br/euf/>. Other national or international exams, such as the GRE (Graduate Record Examination) and UNIPOSRIO (Unified Examination of Graduate Studies in Physics in Rio de Janeiro), could be accepted, at the discretion of the Commission in Selection.

Enrollment in this public notice is free of charge and must be carried out exclusively by electronic means. With the exception of letters of recommendation, all necessary documentation for this purpose must be sent through the link: <https://forms.if.ufrgs.br/index.php/125254>.

At registrations will be approved by Commission in Selection and considered valid only if at copies in all you documents listed below have been sent. At the case in candidate graduated in area to The Physical, The application will be evaluated and you can be approved or no, the criteria of the Selection Committee.

### **2. GIVES SELECTION**

Candidates will be sorted into two groups: the access group by reservation of places (ARV), and the group in access universal (AU). O ARV It is reserved at candidates Brazilians cream(s) or naturalized, self-declared black, indigenous, quilombolas, transvestites/transsexuais or that are people with disabilities, in accordance with Law 12,711 of August 29, 2012, regulated by the Decree 7,824 of October 11, 2012, as well as Normative Ordinance No. 13 of the Ministry of Education, of October 11, May 2016. The AU is intended The all those registered.

### **3. ABOUT THE BAGS**

The number of scholarships available for the PPGFis/UFRGS Master's Course varies insofar as grants for works in progress are released. The distribution of scholarships is defined in the public notice. in bags that, different of notice in ticket, It is implemented when existence in bags available.

### **4. GIVES CLASSIFICATION**

#### **4.1. FROM PARAMETERS IN EVALUATION**

4.1.1. **GRADE EUF:** THE title in standardization From parameters The be used for selection of candidates, the score obtained in the EUF exam (or other equivalent exam defined above) will be converted into grade according to the following criteria: The exam grade (referring to the same exam/semester/period of application) will be converted into a score by calculating:

$$\text{SCORE} = (\text{average score of the candidate in the EUF} - \text{overall average score in the EUF}) / \text{standard deviation} + 1.5 \text{ (with rounding for two houses decimals).}$$

After, it is assumed  $\text{GRADE EUF} = \text{SCORE}$ , soaking in grade three for SCORE larger or equal The three.

4.1.2. **CARDS IN RECOMMENDATION:** TO) candidate shall to introduce two (two) cards in recommendation. Recommendation letters will receive a grade of 0 (zero) or 1 (one) and will aim to validate the score for the ordering.

#### 4.1.3. GRADE DAS BASIC SUBJECTS: Are considered subjects basic:

- **Theory Electromagnetic:** fields electrostatics and magnetostatics; means dielectrics; materials magnetic; fields electric and magnetic generated per loads in movement; potentials electromagnetic; equations from Maxwell; equation gives wave; relativity restricted.
- **mechanics Classic:** formulation lagrangian and hamiltonian of mechanics and applications.
- **mechanics Quantum:** equation in Schrödinger; particle free and packages in wave; problems one-dimensional; momentum angular orbital; atom in hydrogen; spin; theory in disturbance independent of time; collisions; particles identical.
- **Thermodynamics:** Variables in state and differentials Exact Sciences; law zero and balance thermodynamic; laws gives thermodynamics; The equation fundamental gives thermodynamics; potentials thermodynamics; functions answer; stability of state in balance; gas ideal; thermodynamics in reactions chemicals; thermodynamics in transitions in phase; equation in Clausius-Clapeyron; equation in Van der Waals; theory in Ginzburg-Landau; exponents critics.
- **Statistical Mechanics:** kinetic theory; the microcanonical, canonical and macrocanonical ensembles; information theory and entropy; partition function and thermodynamic potentials; Fermi statistics Dirac, Bose-Einstein and Maxwell-Boltzmann; applications.

THE BASIC SUBJECTS DEGREE will be the arithmetic mean of the degrees obtained (between 0 and 3) in all at subjects basic, with rounding for two houses decimals.

IT IS possible to assign equivalences in between at subjects attended by candidates and at considered basics (referred to above) provided the equivalent content has been properly covered. In case there are more than a subject that together can be equivalent to a basic subject, the equivalent grade of the set will be obtained by performing the arithmetic mean between the degrees obtained in each one of them, whether at undergraduate or postgraduate University graduate. O recognition or it does not give equivalence will stay The criterion gives commission of Selection.

Historics that contain grades instead of concepts will undergo the following conversion: grade between the minimum of approval and 7.49 = Ç; note in between 7.50 and 8.99 = B; note in between 9.00 and 10 = THE, with rounding gives note original to two decimal places. Records with other evaluation criteria will be considered on a case-by-case basis by the Selection Committee.

For the conversion of concepts into degrees, the following convention will be followed: A = 3, B = 2, C = 1. basics no attended (or without equivalences) will be assigned grade 0 (zero).

4.1.4. **INTERVIEW (only for ARV):** For alone) enrolled at the ARV there will be still one interview with grade between 0 (zero) and 3 (three), evaluated by a PPGFis examining board. The interview will consist of the defense of the curriculum and in justification for acceptance in the vacancy via ARV, being valid for this notice.

## 4.2. OF ORDERING

Candidates will be separated into two groups with their respective rankings: the access by reservation of vacancies (ARV), in which all the born Brazilian candidates participate or naturalized self-declared black, quilombolas, indigenous, transvestites / transsexuals and carriers in deficiency, and O group in access universal (AU), of which participate all alone) enrolled in this process selective.

### 4.2.1. OF ORDERING FOR ARV

O GRADE FINAL it will be obtained considering The average weighted in between O GRADE EUF, O GRADE SUBJECTS BASIC and the INTERVIEW:

$$\text{GRADE FINAL} = 1/3 (\text{EUF DEGREE} + \text{GRADE SUBJECTS BASIC} + \text{INTERVIEW}) \times \text{CARDS}$$

(with rounding for two houses decimals).

Candidates for reserved access to vacancies can only apply for the vacancy if they have the FINAL DEGREE larger or equal to 1.5.

#### 4.2.2. OF ORDERING FOR AU

Alone) candidates per access universal only they can compete The vacancy if have placing at the EUF at the 3rd or 4th quartile (if EUF DEGREE for bigger or equal to 1.5).

Alone) candidates will be classified fur GRADE FINAL what it will be obtained considering O larger value among O GRADE EUF and The average weighted (MP) in between O GRADE EUF and O GRADE DAS SUBJECTS BASIC, multiplied by the grade of CARDS IN RECOMMENDATION, according to The formula:

$$PM = 1/2 (\text{GRADE EUF} + \text{GRADE SUBJECTS BASIC})$$
$$\text{GRADE FINAL} = \text{major}(\text{GRADE EUF}, \text{MP}) \times \text{CARDS}$$

(with rounding for two houses decimals)

#### 5. FROM DOCUMENTS FOR SUBSCRIPTION

- a) Form in subscription filled ( <https://forms.if.ufrgs.br/index.php/125254>);
- b) Proof of the candidate's performance in the Unified Postgraduate Examination in Physical (EUF), including average general and grades partial per subject, in one of latest six edits prior to the end of the application period for this notice. The receipt sent will only serve for what the candidate define which edition of EUF shall to be taken in account for The analysis gives your registration. The PPGFis/UFRGS Secretariat will confirm the score obtained by the candidate, consulting the note what is it to you made available on the official website of the EUF;
- c) University Degree in course higher, and in postgraduate studies, if for O case, in Physical (or area to). At the case gives absence of a diploma, proof of completion of the undergraduate course will be accepted until the date of registration;
- d) Historic school gives University graduate, mandatory, and in postgraduate studies, if for O case, complete(s), (both) certificate(s) by the institution of origin, containing all disapprovals or suspensions of subjects, if there is. For candidates foreigners, It is required include you criteria adopted fur course what relate concepts and/or notes with your system of evaluation;
- e) Copy of the syllabus of subjects (or equivalents) taken (or in progress) that can be considered compatible (alone or in a grouped form) with the contents of the disciplines basics previously referred. [students of Institute in Physical gives UFRGS no need to meet The it is requirement];
- f) Two (two) Cards in Recommendation according model ( <https://www.if.ufrgs.br/if/wp-content/uploads/carta-de-recomendacao.doc> ), what should be filled by recommenders. Afterwards, each recommender must send their letter directly to the address [cpgfis@if.ufrgs.br](mailto:cpgfis@if.ufrgs.br) through your institutional email. Letters sent from generic addresses, or from the candidate, or sent after the date no limit for registration will be accepted;
- g) CV vitae updated. Brazilians must forward resume gives Platform Lattes;
- h) Copies of the Individual Taxpayer's Registry (CPF) and General Registry (RG), or National Registry of Foreigners (RNE), if there is; or, at absence of this, in pages in identification of candidate at the passport;
- i) Model declaration ( <https://www.if.ufrgs.br/if/wp-content/uploads/atestado-de-autenticidade.doc> ) signed by candidate, attesting what all you documents sent to PPGFis/UFRGS are authentic copies of the originals and that the submitted school transcripts show all disapprovals and locks in registration occurred at University graduate and, if for O case, at postgraduate studies.

## 5.1. FROM DOCUMENTS FOR ACCESS PER ARV

- a) For self-declared black, self-declaration of candidate black (black) or brown) (ATTACHMENT I). O PPGFis constitutes one commission in verification gives self declaration ethnic- racial.
- b) For self-declared transvestites or transsexuals, self-declaration of candidate transvestite / transsexual (ANNEX II);
- c) For carriers in deficiency, documentation evidentiary accompanied in report biopsychosocial for the candidate with deficiency;
- d) For indigenous, declaration gives leadership or declaration gives FUNAI (Foundation National of Indian) or in equivalent agency with recognition official (ANNEX III);
- e) For quilombolas, declaration gives leadership or record of INCRA (Institute National in Colonization and Agrarian Reform) or an equivalent agency with official recognition (ANNEX IV);

## 5.2. OF SHIPPING FROM DOCUMENTS IN SUBSCRIPTION

With the exception of recommendation letters, which must be sent by the recommenders themselves, all documents must to be sent fur form in subscription filled ( <https://forms.if.ufrgs.br/index.php/125254> ).

## 6. GIVES REGISTRATION

The candidate who has been approved in the above mentioned selection process may register meet the following requirements additional:

- 1) Submit Application in Registration, according model ( <https://www.if.ufrgs.br/if/wp-content/uploads/enrollment-requirement.doc> ).
- 2) Present the following original (or authenticated) documents, accompanied by a common copy, with identical content to the sent by occasion gives subscription:
  - Diploma or official certificate of completion of higher education (and postgraduate studies, if applicable) in Physics (or related area), and in the case of an official certificate of completion, a double-sided copy of the diploma must be forwarded to PPGFis/UFRGS immediately after its issuance;
  - Complete undergraduate (and graduate, if applicable => mandatory if you have been considered for the selection in this notice), certificate by the home institution;
  - CPF and RG or, in the case of a foreign candidate, RNE with a minimum validity of one month (if any, or, in the absence of this, identification pages of the candidate in the passport and the page where the visa appears current temporary).

NOTE: All you documents shall to be scanned, saved in PDF and sent The CPG for O email

**cpgfis@if.ufrgs.br** . THE face-to-face delivery it will be carried out only after O return of activities face-to-face

## 7. OF TIMELINE

All the referring results The this public notice will be disclosed in page web of Program in Postgraduate studies in Physical from UFRGS: (<https://www.if.ufrgs.br/if/ppgfis/>) in dates specified below:

Period in registrations	Flow continuous
Disclosure of registrations homologated	Up until 05 days Useful after O closure of registrations, at the The end of the 1st fortnight of month.
Period in resource	Up until 02 days Useful after The homologation.
Disclosure From approved at selection	Up until O third day of month later, for registrations received during O period in a month, what understands The 2nd fortnight of month previous and The 1st fortnight of month in course.
Period in resource	Up until 02 days Useful after The disclosure From approved at selection.
Registration presencial	First day useful of month subsequent to gives Publication of respective approvals.
Validity gives selection	Flow continuous.
Disclosure of Notice of PPGFis	16 of April in 2022
Validity of Notice	12 months renewable per equal period.

**ATTACHMENT I (Model of self-declaration Racial)**

**SELF-DECLARATION RACIAL**

I, \_\_\_\_\_, RG  
\_\_\_\_\_, CPF \_\_\_\_\_, issued per \_\_\_\_\_  
in \_\_\_\_/\_\_\_\_/\_\_\_\_, candidate in the SELECTION NOTICE FOR ADMISSION TO THE COURSE OF ( )  
MASTER'S DEGREE / ( ) DOCTORATE DEGREE OF PROGRAM IN POSTGRADUATE STUDIES IN  
PHYSICAL GIVES UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL for specific purposes to  
comply with item **5.1** of the NOTICE OF SELECTION 20\_/\_ , I declare that I am ( ) black ( ) brown.

I am aware that providing false information regarding established requirements for self-declaration incurs in, in  
addition gives penalty Preview in law, disqualification of Process Selective and refusal/cancellation gives  
inscription and registration at the course, O that can will happen any time.

\_\_\_\_\_, \_\_\_\_ from \_\_\_\_\_ from 20 \_\_\_\_.

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**Signature of candidate**

**ATTACHMENT II (Model of self-declaration of Identity trans)**

**SELF-DECLARATION OF TRANS IDENTITY:  
TRANSVESTI, TRANSEXUAL OR  
TRANSGENDER**

I, \_\_\_\_\_, RG  
\_\_\_\_\_, CPF \_\_\_\_\_, issued per \_\_\_\_\_  
in \_\_\_/\_\_\_/\_\_\_, candidate in the SELECTION NOTICE FOR ADMISSION TO THE COURSE OF ( )  
MASTER'S DEGREE / ( ) DOCTORATE DEGREE OF PROGRAM IN POSTGRADUATE STUDIES IN  
PHYSICAL GIVES

UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL for specific purposes to comply with item 5.1 of  
the SELECTION NOTICE 20\_/\_\_, I declare my trans identity (transvestite, transsexual or transgender). I affirm  
although the name used in the filling above and also in the registration form is the one that must be used, even  
though be distinct from mine civil registration, sealing the use of other identification

I am aware that providing false information regarding established requirements for self-declaration incurs in, in  
addition gives penalty Preview in law, disqualification of Process Selective and refusal/cancellation gives  
inscription and registration on the course, what can will happen any time.

\_\_\_\_\_, \_\_\_\_\_ from \_\_\_\_\_ from 20 \_\_\_\_.

\_\_\_\_\_  
**Signature of candidate**

**ATTACHMENT III (Model of Declaration Indigenous)**

**DECLARATION GIVES COMMUNITY INDIGENOUS**

We, undersigned, Village Indigenous \_\_\_\_\_, certified by FUNAI, Process no \_\_\_\_\_, for The end specific in to meet to NOTICE OF SELECTION FOR ADMISSION TO THE COURSE OF ( ) MASTER / ( ) DOCTORATE OF THE PROGRAM IN POSTGRADUATE STUDIES IN PHYSICAL GIVES UNIVERSITY FEDERAL OF RIVER GREAT OF SOUTH,

certify that \_\_\_\_\_, CPF \_\_\_\_\_, ID \_\_\_\_\_, is MEMBER BELONGING to this INDIGENOUS Community, located in the Municipality(ies) of \_\_\_\_\_, state \_\_\_\_\_.

We are aware of what, if for detected untruth at declaration, the student will be subject at penalties foreseen in law. Be true for, we sign the present declaration:

1) **chief gives Community: (name)** \_\_\_\_\_,

CPF: \_\_\_\_\_, Address: \_\_\_\_\_

telephones for contact: ( \_\_\_) \_\_\_\_\_.

Signature: \_\_\_\_\_.

2) **Leadership gives Community: (name)** \_\_\_\_\_,

CPF: \_\_\_\_\_, Address: \_\_\_\_\_

telephones for contact: ( \_\_\_) \_\_\_\_\_.

Signature: \_\_\_\_\_.

3) **Leadership gives Community: (name)** \_\_\_\_\_,

CPF: \_\_\_\_\_, Address: \_\_\_\_\_

telephones for contact: ( \_\_\_) \_\_\_\_\_.

Signature: \_\_\_\_\_.



**ATTACHMENT IV (Model in Declaration Quilombola)**

**DECLARATION GIVES COMMUNITY QUILOMBOLA**

We, undersigned, Community Quilombola \_\_\_\_\_, certified for the Foundation Palmares, process \_\_\_\_\_, for The end specific in to meet to SELECTION NOTICE FOR ADMISSION TO THE COURSE OF ( ) MASTER'S DEGREE / ( ) DOCTORATE OF PROGRAM IN POSTGRADUATE STUDIES IN PHYSICAL GIVES UNIVERSITY FEDERAL OF RIVER GREAT OF

SOUTH, certify that \_\_\_\_\_,  
CPF \_\_\_\_\_, ID \_\_\_\_\_, It is MEMBER  
QUILOMBOLA Community, located in the Municipality(ies) of  
\_\_\_\_\_, state \_\_\_\_\_.

We are aware of what, if for detected untruth at declaration, the student will be subject at penalties foreseen in law. Be true for, we sign the present declaration:

1) **president gives Community: (name)** \_\_\_\_\_,

CPF: \_\_\_\_\_, Address: \_\_\_\_\_

\_\_\_\_\_.  
**telephones for contact: ( \_\_ )** \_\_\_\_\_.

**Signature:** \_\_\_\_\_.

2) **Leadership gives Community: (name)** \_\_\_\_\_,

CPF: \_\_\_\_\_, Address: \_\_\_\_\_

\_\_\_\_\_.  
**telephones for contact: ( \_\_ )** \_\_\_\_\_.

**Signature:** \_\_\_\_\_.

3) **Leadership gives Community: (name)** \_\_\_\_\_,

CPF: \_\_\_\_\_, Address: \_\_\_\_\_

\_\_\_\_\_.  
**telephones for contact: ( \_\_ )** \_\_\_\_\_.

**Signature:** \_\_\_\_\_.