

**2023**  
**Postdoctoral Research Fellowship Program**

**Secretariat of Academic Committee of  
China-Brazil Joint Laboratory for Space Weather**

**December 23, 2022**



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The China-Brazil Joint Laboratory for Space Weather (Hereinafter referred to as CBJLSW) of the National Space Science Center (NSSC) at the Chinese Academy of Sciences (CAS), invites the applicant for postdoctoral research fellowship in the areas of Space Science and Space Weather Studies.

## 1. OBJECTIVES

The CBJLSW postdoctoral research fellowship program aims to train excellent, outstanding and potential scientists to contribute research and development of the space weather and space science for China and Brazil.

To achieve the scientific goal of CBJLSW, the postdoctoral fellows should work with the following research aims: monitoring and research of the solar atmosphere, interplanetary space, magnetosphere, ionosphere, middle and upper atmosphere, and lower atmosphere, by obtaining space environmental monitoring data in the western hemisphere in order to understand the regionality of space weather and of its relationship with global change and by performing research on several aspects of Solar-Terrestrial physics and space weather. The two parties train young researchers, conduct scientific research and take responsibility for the operation and maintenance of equipment after they approve a selection process by the academic committee of CBJLSW.

## 2. CHARACTERISTICS

The 2023 CBJLSW's postdoctoral research fellowship program will start on **March 1<sup>st</sup>, 2023** and last for two years. It will open the following research areas.

### 2.1 Research areas

- I. Dynamics and modeling of Solar Wind-Magnetosphere interactions.
  - Chinese supervisor: Dr. Chi Wang /NSSC
- II. Solar surface and interplanetary processes associated with space weather.
  - Chinese supervisor: Dr. Hui Li /NSSC
- III. Dynamics of the magnetosphere and space weather effects.
  - Chinese supervisor: Dr. Lei Dai /NSSC
- IV. Dynamics of the Radiation Belts and of the South Atlantic Magnetic Anomaly.



- Chinese supervisor: Dr. Jiankui Shi /NSSC
- V. Dynamics of the ionosphere at low and equatorial latitudes during intensified Space Weather.
  - Chinese supervisor: Dr. Yajun Zhu /NSSC
- VI. Ionospheric processes in the South Atlantic Magnetic Anomaly region.
  - Chinese supervisor: Dr. Jiyao Xu /NSSC
- VII. Dynamics of atmospheric metal layer based on Lidar detection.
  - Chinese supervisor: Dr. Guotao Yang /NSSC
- VIII. Photochemistry and dynamics of the mesosphere and low thermosphere over Brazil.
  - Chinese supervisor: Dr. Jiyao Xu /NSSC

## 2.2 Requirements and Commitments

The applicant

- a) Have completed the PhD.
- b) Assume exclusive dedication to the research project.
- c) Have a solid background in space physics, scientific research experience in his/her proposed fellowship research project and have good communication and group cooperation capabilities.
- d) Cannot have an employment relationship, nor can receive, during the entire period of the fellowship, another entity's fellowship, salary or remuneration resulting from the exercise of activities of any nature.
- e) Cannot make changes to the initial plan of the research project without a prior consent from CBJLSW.
- f) Submit scientific reports within the scheduled deadlines, accompanied by the requested documentation.
- g) Must be submitted together with the name of a Brazilian researcher (who will be the Postdoctoral Project Supervisor) linked to a research institution (or equivalent) in Brazil where the project will be developed. In addition, a Chinese Supervisor familiar with the research area of the applicant, will be appointed as well.
- h) Refer to CBJLSW / NSSC / CAS's support in articles, books, abstracts of works presented at meetings and in any other publication or form of



dissemination of activities which will result, in whole or in part, from grants supported by the CBJLSW.

- i) Must ensure the adequate protection of intellectual property rights that may result from a project supported by CBJLSW.

### 3. CONDITIONS

3.1 The postdoctoral research fellowship includes:

- a) Monthly payment: R\$ 8500.00 (eight thousand five hundred real).
- b) Monthly research stipend / allowance R\$ 1000.00 (one thousand real).

*The stipend/allowance must be used during the term of the fellowship. Any unused balance must be returned within 30 days of the end of your fellowship. It can be used for the purchase of: books, periodicals, office supplies (software, paper...), air or ground tickets and accommodation for events relevant to your research project, congress registration fees, printing of posters.*

*All permanent materials (computers, laboratory equipment, etc.) must be, at the end of your fellowship, incorporated and returned to the CBJLSW patrimony. The incorporation of these materials must be proven at the moment of the accountability report delivery.*

- c) Performance bonus: R\$ 12000.00 (twelve thousand real).

*This bonus will be given when the fellow meets the requirements for article publication and passes the mid-term evaluation as well as the final assessment (one-time extra allowance).*

- d) Maternity/ paternity leave (Federal Law of Brazil No. 13,536, of December 15<sup>th</sup>, 2017).

3.2 Fellowships duration

The CBJLSW postdoctoral research fellowship can last for a period up to 24 months.

3.3 Restrictions

- a) The postdoctoral fellow who does not deliver the final scientific report will not be allowed to apply for a new contract in the program.
- b) A postdoctoral fellow will not be allowed to have a supervisor who is closely



related to him/her.

- c) The cost of traveling abroad will not be covered by CBJLSW, except for a working report meeting or a scientific conference in China, directly related with the postdoctoral fellow's research project and when approved by the CBJLSW.

Although the above described regulations for this fellowship program will try to be followed, it is important to note that some of the rules may eventually become modified by the CBJLSW staff due to unexpected economic, political or sanitary changes that may occur. Such modifications may involve changing the validity of the start and end dates of the fellowship, reducing the number or the amount of fellowships, and may require other appropriate measures to be applied for each situation. The laboratory will have the right to make this amendment when necessary without separate notice.

#### **4. Evaluation Criteria**

The proposals will be judged by ad-hoc reviewers from NSSC and INPE based on the applicants' projects and CV.

Evaluation criteria:

- a) Perform scientific production as the first author in articles in indexed scientific journals of recognized quality in the area.
- b) Research project.
- c) National and international academic activity experience.
- d) Excellent performance in previous CBJLSW fellowships.
- e) Three recommendation letters from scientists who work in Space Science and know well the applicant's work.
- f) Other aspects considered relevant for the assessment of the applicant's potential as a researcher, such as group cooperation capabilities and academic and ethical conduct.

#### **5. ASSESSEMENT**

The mid-term evaluation will be performed after one year and the final assessment will be carried after two years. The important assessment criteria is



to have annually at least ***one paper in a JGR journal (or in a journal with a similar Impact Factor), or two scientific papers in journals with Impact factors not less than 1.*** The second year of the fellowship will be allowed only if the fellow passes the mid-term evaluation, otherwise the postdoctoral position will be terminated.

The assessment items and proportion of scores is as follows

- a) **Progress and completion of scientific research work 40%.**
- b) **Published Articles 30%.**
- c) **Academic exchange 15%.**
- d) **Participate in lab construction and operation 15%.**

The fellow needs to have a total performance grade above a minimum score of **70** over 100 in order to be approved.

## **6. MATERIALS**

- a) CBJLSW application form (annex1)
- b) Complete CV in English version with a brief introduction of research experience.
- c) Detailed Research Proposal containing a maximum of 20 pages.
- d) Photocopies of the first page of five published scientific papers, including abstracts.
- e) Recommendation Letters: You must ask from three scientists familiar with you and your work to send their recommendation letter on activities for the last 5 years directly to the email address at the end of this document (signed, dated and on official headed paper with contact phone number and email address).
- f) Notarized photocopies of undergraduate and graduate degree certificates.
- g) Notarized photocopies of undergraduate and graduate transcripts.
- h) FUNCATE application form. (It will be sent to the fellow by email, after the results of the selection are announced)

### **NOTE:**

**If the certificates and transcripts are not in English, you need to provide an English version, but they do not need to be translated by a Certified Translator.**



## 7. DEADLINE

- I. For the applications: **January 25th, 2023, 23h59m, Brasilia Time** (Items a, b, c, d and e from MATERIALS).
- II. Result announcement: **February 15th, 2023, 23h59m, Brasilia Time**
- III. Submit additional items listed in MATERIALS: **February 20th, 2023, 23h59m, Brasilia Time** (Items f, g and h).

## 8. CONTACT / SUBMIT

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Sheila Huang : sheila.huang@nssc.ac.cn / sheila.huang@inpe.br

Welcome to apply for the 2023 postdoctoral research fellowship program of CBJSW. If you have any additional questions, please feel free to contact us.

*Best regards,*

**Secretariat of Academic Committee of  
China-Brazil Joint Laboratory for Space Weather**





## (Annex1)



# CHINA-BRAZIL JOINT LABORATORY FOR SPACE WEATHER

## Postdoctoral Research Fellowship Program Application Form

Application Date	
Main Research Areas	
Research Project Title	
Chinese Supervisor	Name: Institution:
Brazilian Supervisor	Name: Institution:

### 1. Personal information

Full name				Photo
Name in bibliographical citations				
Date of Birth		Gender		
Nationality (Birth Country)		Citizenship		



Identity document type		Document No.	
Contact telephone/cell phone number			
Correspondence Address			
Marital status			
E-mail			

## 2. PhD information

Institute			
Country		Research Area	
Date of defense		Date of degree	
Dissertation Title			
Supervisor's name			
Abstract of dissertation (no more than 1000 words).			

## 3. Educational qualification

(Please list all academic qualifications obtained since completing your secondary education)



University/ College	Degree	Department/Major	From (mm/yy)	To (mm/yy)

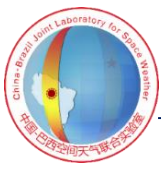
#### 4. Professional experience

Institution	Title/Position	Department/Major	From (mm/yy)	To (mm/yy)

#### 5. Scientific research achievements

I. Representative papers published in academic journals (including those published and under review)

	Article information		Status	Published Date
1	Article title		<input type="checkbox"/> Published <input type="checkbox"/> Under review	
	Journal Name			
2	Article title		<input type="checkbox"/> Published <input type="checkbox"/> Under review	
	Journal Name			
3	Article title		<input type="checkbox"/> Published <input type="checkbox"/> Under review	
	Journal Name			
4	Article title		<input type="checkbox"/> Published <input type="checkbox"/> Under review	
	Journal Name			
5	Article title		<input type="checkbox"/> Published <input type="checkbox"/> Under review	



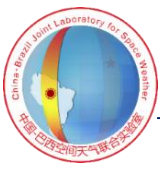
	Journal Name			
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II. Projects, Awards and Patents

1	Projects (as a project leader or a participant)
2	Awards
3	Patents
4	Others

6. Language proficiency (note from 5 to 1, 5: excellent .....1: poor)

Language	Listening	Speaking	Writing	Reading



## 7. Declaration and Signature

I hereby declare that the above information is accurate and correct. I authorize the China-Brazil Joint Laboratory for Space Weather office to electronically store and process my personal data for the purpose of assessment, statistics and evaluation organized on the Postdoctoral Research Fellowship Program.

Applicant: \_\_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Brazilian Supervisor: \_\_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_