

Senior Research Staff Positions– Institute of High Energy Physics, Chinese Academy of Sciences–

A. Types of Positions and Fellowship

Staff positions are available at the Institute of High Energy Physics (IHEP) under the following schemes:

1. National “Thousand Talents” Scheme (full time & part time programs)
2. National “Thousand Young Talents Program”
3. Pioneer “Hundred Talents Program” of CAS
4. “Outstanding Talents Program” of IHEP

B. Requirements

Requirements for the above positions are as follows.

1. National “Thousand Talents” Scheme (full time & part time programs)

The “Thousand Talents” Scheme is a national-level programme aimed at recruiting the top, well established researchers from outside of China.

- Applicants should have a PhD, normally from a university outside China.
- Applicants should have a professorship or equivalent position at a well-regarded university or research institute.
- Other conditions may be required by the program administrator.

For the “Thousand Talents” full time programme, the candidate should guarantee that from the second year of the fellowship onwards, he or she will spend at least 9 months each year at IHEP.

For the “Thousand Talents” part time programme, the candidate should agree a definite research task with IHEP; the fellowship term is at least 3 years, with the candidate guaranteeing to spend at least 2 months each year at IHEP.

2. National “Thousand Young Talents Program”

The “Young Thousand Talents” Scheme for Junior Researchers is a national-level programme aimed at recruiting the best young researchers worldwide.

- Applicants should have a PhD, from a university outside China, and at least 3 years of research experience outside China after graduation; or, a PhD from a Chinese university and at least 5 years of research experience outside China after graduation.
- Applicants should hold a formal research or teaching position at a well-regarded university, research institute or R&D-oriented company.
- Other conditions may be required by the program administrator.
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Exceptions may be made for extremely well-qualified candidates, including new Ph.D researchers who have made outstanding achievements in their field.

3. Pioneer “Hundred Talents Program” of CAS

- Applicants should normally have a PhD and at least 3 years of research experience at a well-regarded university or research institute outside China. For exceptional candidates, the length of research experience can be flexible.
- The application should be made within 5 years of award of the PhD.
- Applicants should have strong research achievements in their field, have potential for innovation, and be able to work well in a team.

4. “Outstanding Talents Program” of IHEP

- Applicants should have a PhD and at least 5 years of research experience
- Applicants holding a postdoc or assistant professor or equivalent level position or above..

Exceptions may be made for applicants with strong engineering or technical expertise.

C. Grants, salaries and benefits

Grants, salaries and benefits for the above fellowships are as follows.

1. National “Thousand Talents Program” (full time & part time programs)

- i. Appointment at senior or project leader level
- ii. Competitive salary
- iii. Access to medical care
- iv. One-time lump sum of 1 million Chinese Yuan
- v. Adequate research funding (for the long programme, not less than 3 million Chinese Yuan)
- vi. Guarantee of adequate research space and equipment
- vii. Support for establishing of a research group, including recruitment of “Hundred Talents” fellows
- viii. Allocation of appropriate number of research students
- ix. Assistance in arranging schooling for children and finding employment for spouse
- x. Relocation allowance and housing assistance

2, 3. National “Thousand Young Talents Program”/ Pioneer “Hundred Talents Program” of CAS

- i. Appointment at senior or project leader level
- ii. Competitive salary
- iii. Personal startup grant of 600,000 Chinese Yuan (for “Thousand Talents” scheme, includes one-time lump sum of 500,000 Chinese Yuan)
- iv. Adequate research funding: for “Hundred Talents” scheme, not less than 1.3 million Chinese Yuan; after 2-year appraisal, this may be followed by another 2 million Chinese Yuan; for the “Thousand Talents” scheme, grant in the range 1.5 – 3.5 million Chinese Yuan
- v. Applicants can apply for an IHEP Young Talents research grant
- vi. Guarantee of adequate research space and equipment
- vii. Assistance in arranging schooling for children and finding employment for spouse
- viii. Relocation allowance and housing assistance

4. “Outstanding Talents Program” of IHEP

- i. Appointment at senior or project leader level
- ii. Competitive salary
- iii. Start-up research grant
- iv. Applicants can apply for an IHEP Young Talents research grant
- v. Assistance in arranging schooling for children and finding employment for spouse
- vi. Relocation allowance

D. Available research topics

Research topics we are particularly seeking applicants for the above fellowships for are as follows.

1. National “Thousand Talents Program” (full time & part time programs)

Research Area	Topics
Experimental Particle and Nuclear Physics	Advanced particle detectors, offline software, detector calibration
Theoretical Physics	Particle physics, nuclear physics, cosmology, astronomy and phenomenology (especially Higgs physics and other TeV-scale physics)
Astronomy and Astrophysics	Cosmic rays (including high energy gamma ray astronomy), cosmic ray detectors, high energy astrophysics theory and observation (including compact stars, gamma ray bursts, active galactic nuclei etc), space-based astronomical instruments (including detectors, electronics and X-ray optics)
Nuclear Technology	Nuclear electronics, radiation protection, molecular imaging, medical physics
Multidisciplinary Research	Synchrotron radiation beamlines and experimental techniques, protein structure and function
Accelerators (Beijing and Dongguan Campuses)	Accelerator physics and technology (including magnet power supplies, high frequency microwaves, vacuum, control, beam measurement, power sources, magnets and mechanical technology)
Neutron physics (Dongguan Campus)	Neutron physics, radiation effects, particle transport modeling and applications, advanced particle detectors, nuclear electronics, neutron scattering and applications
Condensed matter physics (Dongguan Campus)	Crystallography, macromolecule chemistry, condensed matter dynamics, computational physics and computational chemistry

2, 3. National “Thousand Young Talents Program”/Pioneer “Hundred Talents Program” of CAS

Research Area	Topics
Experimental Particle and Nuclear Physics	Pixel detectors, offline software, trigger and data acquisition, event reconstruction, data

	processing, detector electronics
Theoretical Physics	Particle physics, nuclear physics, cosmology, astronomy and phenomenology (especially Higgs physics and other TeV-scale physics)
Astronomy and Astrophysics	Cosmic rays (including high energy gamma ray astronomy), cosmic ray detectors, high energy astrophysics theory and observation (including compact stars, gamma ray bursts, active galactic nuclei etc), space-based astronomical instruments (including detectors, electronics and X-ray optics)
Nuclear Technology	ASICs, anti-radiation devices, radiation protection, medical imaging (detection technology, nuclear spectroscopy, electronics, image processing, image reconstruction algorithms), accelerator applications
Multidisciplinary Research	Typical environmental behavior of contaminants and toxicology, metal genomics, synchrotron radiation beamlines and experimental techniques
Accelerators (Beijing and Dongguan Campuses)	Accelerator physics and technology (including magnet power supplies, high frequency microwaves, vacuum, control, beam measurement, power sources, magnets and mechanical technology)
Neutron physics (Dongguan Campus)	Neutron physics, radiation effects, particle transport modeling and applications, advanced particle detectors, nuclear electronics, neutron scattering and applications
Condensed matter physics (Dongguan Campus)	Crystallography, macromolecule chemistry, condensed matter dynamics, computational physics and computational chemistry
Computing	Distributed computing software, middleware and hardware, data processing platforms, cloud computing and virtualization technology, massively parallel computing, massive data storage and access, computer networks and security

4. “Outstanding Talents Program” of IHEP

Research Area	Topics
Experimental Particle and Nuclear Physics	Pixel detectors, offline software, trigger and

	data acquisition, event reconstruction, data processing, detector electronics
Theoretical Physics	Particle physics, nuclear physics, cosmology, astronomy and phenomenology (especially Higgs physics and other TeV-scale physics)
Astronomy and Astrophysics	Cosmic rays (including high energy gamma ray astronomy), cosmic ray detectors, high energy astrophysics theory and observation (including compact stars, gamma ray bursts, active galactic nuclei etc), space-based astronomical instruments (including detectors, electronics and X-ray optics)
Nuclear Technology	ASICs, anti-radiation devices, radiation protection, experiment testing techniques, medical imaging (detection technology, nuclear spectroscopy, electronics, image processing, image reconstruction algorithms), accelerator applications
Multidisciplinary Research	Typical environmental behavior of contaminants and toxicology, metal genomics, synchrotron radiation beamlines and experimental techniques, nuclear structure materials radiation damage effects
Accelerators (Beijing and Dongguan Campuses)	Accelerator physics and technology (including magnet power supplies, high frequency microwaves, vacuum, control, beam measurement, power sources, magnets and mechanical technology)
Neutron physics (Dongguan Campus)	Neutron physics, radiation effects, particle transport modeling and applications, advanced particle detectors, nuclear electronics, neutron scattering and applications
Condensed matter physics (Dongguan Campus)	Crystallography, macromolecule chemistry, condensed matter dynamics, computational physics and computational chemistry
Computing	Distributed computing software, middleware and hardware, data processing platforms, cloud computing and virtualization technology, massively parallel computing, massive data storage and access, computer networks and security