Applications Now Open for

2023 Postdoctoral Researcher Opportunities

Shanghai Typhoon Institute, China Meteorological Administration; Shanghai, 200030, China

Shanghai Typhoon Institute (STI) of China Meteorological Administration was established in 1978. Its main research foci include tropical cyclone monitoring and information integration, development of tropical cyclone forecasting methodologies, numerical weather prediction techniques, marine meteorological forecasting techniques, tropical cyclone climate and related disaster assessments. It is the information center of tropical cyclone data, the research-to-operation transfer center of tropical cyclone and numerical weather prediction, and the training base for professionals in tropical cyclone and numerical weather prediction research.

To enhance its capability to become a world-class research center for tropical cyclone, marine meteorology, and numerical weather prediction, STI has set up postdoctoral researcher positions in the following research areas:

- Tropical cyclone microscale wind field analysis and forecasting techniques
- Effect of land (especially urban surface) on tropical cyclone intensity, size and precipitation
- Tropical cyclone monitoring techniques
- Numerical weather prediction techniques for tropical cyclone forecasting
- Seasonal to sub-seasonal prediction of tropical cyclone activity
- Climate change and tropical cyclone activity

The detailed job description and requirements for each position are as follows:

Position 1

Postdoctoral researcher in microscale wind field analysis and forecasting techniques related to the tropical cyclone boundary layer.

Requirements

- A Ph.D. degree;
- Professional knowledge and theory and relevant experience in atmospheric science, physics, engineering, mathematics and mechanics or AI;
- Proficiency in at least one of the following computational and graphic tools: Python,

FORTRAN, MATLAB, R, or NCL. Applicants with experience in Computational Fluid Dynamics (CFD) model are preferred;
- Proficiency in High-Performance Computing (HPC);
- Familiarity with machine learning, data mining and data analysis, and theories related to numerical model assimilation;
- Strong relevant programming experience;
- Demonstrated ability to work as part of a collaborative team and communicate effectively.

Position 2

Postdoctoral researcher in the effect of land (especially urban surface) on tropical cyclone intensity, size and precipitation

Requirements

- Ph.D. in Meteorology or Atmospheric Science;
- Strong experience in simulation based on WRF, GRAPES, LES and other common numerical models;
- Professional knowledge and theory in urban boundary layer, atmospheric physics, common land model, and urban canopy model;
- Very good programming skills, familiarity with high-performance programming environments, and proficiency with at least one of the following computational and graphic tools: Python, MATLAB, R, or NCL;
- Demonstrated ability to work as part of a collaborative team and communicate effectively.

Position 3

Postdoctoral researcher in tropical cyclone monitoring techniques

Requirements

- Ph.D. in Meteorology or Atmospheric Science;
- Experience in remote sensing observations and in the use of other observational tools, and familiarity with meteorological models;
- Very good programming skills, familiarity with high-performance programming environments, and proficiency with at least one of the following computational and graphic tools: NCL, Python, or MATLAB;
- Demonstrated ability to work as part of a collaborative   team and communicate effectively, with an open research vision.

Position 4

Postdoctoral researcher in numerical weather prediction of tropical cyclones

Requirements

- Ph.D. in Meteorology or Atmospheric Science;
- Possess the development foundation based on WRF, GRAPES, or other common numerical models, as well as study experiences in the related fields; good knowledge of various parameterization techniques is essential
- Very good programming skills, familiarity with high-performance programming environment environments, and proficiency with at least one of the following computational and graphic tools: Python, MATLAB, R, or NCL;
- Demonstrated ability to work as part of a collaborative team and communicate effectively.

Positions 5 and 6

Postdoctoral researcher in seasonal to sub-seasonal tropical cyclone activity.
Postdoctoral researcher in climate change and tropical cyclone activity.

Requirements

- Ph.D. in Meteorology or Atmospheric Science;
- Very good knowledge and experience in tropical cyclone climatology and climate change;
- Very good programming skills, familiarity with statistical theory and methods, and proficiency with at least one of the following drawing tools: NCL, Python, MATLAB, or R;
- Demonstrated ability to work as part of a collaborative team and communicate effectively.

Salaries and benefits

- Appointment is for a maximum period of 3 years. The above positions carry an initial salary of ¥200,000-350,000 for the first two years. Continued appointment after one year depends on performance.
- Researchers are encouraged and supported to apply for "The Innovative Talents Support Plan for Postdoc", "Shanghai Super Postdoc Plan", "China Postdoc Fund", "Shanghai Typhoon Research Foundation", etc.
- Permanent residence with spouse can be registered in Shanghai according to the relevant policies in Shanghai.
- Apartments will be available for application;

- ◆ Free annual health check;
- ◆ Priority in employment after the postdoctoral appointment.

Application materials

Please submit a one-page personal statement on your study experiences and what you propose to do during the appointment period, your CV/Resume, copies of abstracts of doctoral dissertation and doctoral Diploma (or proof materials of doctoral graduation), copy of ID card (or passport), PDF documents of 1-3 representative academic papers and other relevant materials that can prove your ability and academic level, and contact information of two referees.

Application method

Applicants are encouraged to submit the application materials and communication mode to contact email:

Contact: Mr. Fang, fangzq@typhoon.org.cn
Phone number: +86-21-54896350
Application deadline: 31 December 2023.

Positions will be filled as soon as suitable candidates are identified.