Astrophysicist
Trust Fund (Non-Federal), Indefinite

The Smithsonian Astrophysical Observatory (SAO) invites applications for the position of Astrophysicist within the Chandra X-ray Center (CXC). The CXC operates the Chandra X-ray Observatory under contract with NASA. The mission has been in operation since July 1999. The employee will undertake a significant role in the CXC working with CXC staff to maximize the scientific return of the data obtained by the Chandra X-ray Observatory. The employee reports to the Chandra X-ray Center Data System (CXCDS) End-to-End Scientist, and will provide scientific coordination of, and input to, the end-to-end pipeline and operational software design, development, and integration. The employee will take a leading role in the development, operational testing, and production of the Chandra Source Catalog (CSC). The employee is expected to conduct a program of research in the area of theoretical or observational x-ray astronomy and high energy astrophysics with Chandra and other observatories.

A thorough knowledge of astronomy, physics, or astrophysics, and demonstrated experience working with X-ray astronomy data, is required. The successful candidate will have advanced knowledge of modern computer techniques, simulation and data analysis techniques, Bayesian statistical methods commonly used in the analysis of X-ray astronomy data, and conceiving, designing, overseeing the development and testing of new software aimed at producing new scientific products for general use. The successful candidate will have experience with standard astronomical x-ray data analysis packages such as CIAO, FTOOLS, XMM/SAS, Sherpa, or XSPEC, as well as scripting languages commonly used for astronomical data analysis such as Python, IDL, MATLAB, or R. The candidate will communicate the results of her/his analysis via scientific papers, technical memoranda, conferences, or meetings. We offer a challenging environment working in partnership with CXC scientific and engineering staff to produce the highest quality data from the Chandra X-ray Observatory.

Duties include:
- Coordinating for the CXCDS activities needed to generate and maintain Chandra operational software that is scientifically coherent and responsive to the scientific needs of the mission.
- Developing and maintaining scientific requirements and/or specifications for the Chandra Source Catalog.
- Investigating and developing scientific algorithms that effectively and efficiently implement scientific requirements.
- Communicating with scientists and engineers to bring in their expertise to define requirements and algorithms that maximize the scientific utility of the software and resultant data products.

- Providing scientific oversight/input to the design and integration of the CXC software.
- Analyzing and evaluating data processing problems in support of science operations and in response to user input.
- Ability to work as part of a team.

We will only accept applications on line for this position. To view the complete vacancy announcement and online application procedures, please visit http://www.usajobs.gov/

First consideration to be made 14 days after the opening date.