

## Dear Colleague Letter to the Community

### Call for Letters of Application for Membership in the Community Science Team for X-ray Astronomy Mission Concepts

Dear colleague letter released: October 3, 2011

Responses due: 4:30 PM EST on October 19, 2011

This letter is an invitation to U.S. scientists to serve as members of the NASA Physics of the Cosmos (PCOS) Community Science Team (CST) for X-ray Astrophysics Mission Concepts. On September 13, 2011, NASA's Astrophysics Division (ApD) issued a Request for Information (RFI) for mission concepts in the area of X-ray astronomy that address the science objectives of the International X-ray Observatory (IXO). The X-ray CST is being constituted to assist the ApD, through its PCOS Program Office, in identifying and studying concepts of high scientific, technical, and programmatic merit based on responses to the RFI. For this activity, we are seeking individuals with expertise and experience in all aspects of X-ray astronomy, including observation, theory, and instrumentation.

**Background:** Following the termination of the NASA/ESA partnership in the International X-ray Observatory (IXO) mission, NASA's Physics of the Cosmos (PCOS) Program is developing alternative plans to address high priority IXO scientific objectives described in the 2010 Astrophysics Decadal Survey, "New Worlds, New Horizons" (NWNH) (NRC 2010, <http://www.nap.edu/catalog/12951.html>). The PCOS Program Office will work with the science community to develop new X-ray astronomy mission concepts satisfying some or all of the scientific objectives listed in the RFI. In this process, NASA will utilize input from the X-ray CST to identify those mission concepts most nearly satisfying those objectives. These concepts will be further refined by NASA's mission design laboratories and will eventually be presented to the National Research Council Committee on Astronomy and Astrophysics (CAA) for consideration. Recommendations from the CAA will subsequently be used to guide more detailed development of some or all of these X-ray mission concepts. These concept studies will ultimately be used to guide future technology development efforts for the Astrophysics Division.

The specific role of the X-ray CST is as follows:

- Evaluate the RFI responses for the degree to which they fulfill the IXO science objectives and for their degree of technical readiness;
- Participate in, and assist in the organization of, a concept study workshop;
- Identify a small number of concepts for further study based on input from the RFI and the workshop;
- Participate in the mission studies, including potential involvement in the mission design laboratory activities; and
- Write a report summarizing the study findings and their implications for future technology developments and present the report to NASA and possibly the CAA.

It is anticipated that individuals selected in response to this call would nominally serve until the completion of the PCOS Program Office assessment, currently anticipated to be Summer 2012.

The RFI may be found at

<http://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId={E8978614-F136-6604-3526-2414C1C70BE7}&path=open>. Additional information, such as recent updates and frequently asked questions, about the RFI may be found at:  
<http://pcos.gsfc.nasa.gov/studies/X-ray-mission.php>.

**This Call:** NASA is requesting letters of application from U.S. scientists to apply for membership in the X-ray CST. This request is open to all U.S. scientists, including individuals planning to respond to the RFI. Letters of application are invited from individuals, not groups.

Letters of application shall be limited to three pages, with 11-pt font and 1-inch margins, and should include the following content:

- a) Describe your current involvement in the research areas of direct relevance to the RFI science goals.
- b) Describe your specific area(s) of expertise in the field of X-ray astronomy. These may include leadership positions, observational work, theoretical work, or instrumentation.
- c) Provide references to papers that you have published that establish your expertise.
- d) Provide a statement of your commitment to support your participation in the X-ray CST from Fall 2011 through Summer 2012.

NASA will select the membership and the Chair of the X-ray CST after reviewing the letters received in response to this call.

A key element of the assessment of the RFI responses is a two-day workshop involving individuals who respond to the RFI as well as all other interested individuals from the broader high-energy astronomy community. This is expected to take place in December 2011. At this workshop, individuals responding to the RFI may be invited to provide a brief presentation of their submission. X-ray CST members will assist with planning this workshop and are expected to attend in person to gain a deeper understanding of the proposed mission concepts.

The X-ray CST will meet regularly by teleconference. A total of 3-4 face-to-face meetings are anticipated, including a workshop planning meeting, the mission concept study workshop itself, and one or two meetings to synthesize study results and prepare the final report. CST members will also be invited to participate in mission design laboratory activities (remote participation is anticipated). NASA will reimburse travel expenses.

NASA expects to select approximately 10 individuals for membership on the X-ray CST and plans to announce its selection by November 3, 2011. An initial meeting (by telecon) is tentatively scheduled for the week of November 10, 2011. Prospective applicants need to ensure that they will have the necessary time and commitment to support their participation in the X-ray CST through the anticipated presentation to the CAA in Spring-Summer 2012.

Replies to this call should be submitted by email only and be received by 4:30 PM EST on October 19, 2011. Please email your letter (with subject line "X-ray CST Application") to Dr.

Richard Griffiths, NASA HQ, at [richard.e.griffiths@nasa.gov](mailto:richard.e.griffiths@nasa.gov). Questions may be addressed to Dr. Griffiths at the email address provided or at 202-358-1605.

Thank you for your interest in participating in the NASA X-ray Community Science Team.

Geoffrey L. Yoder  
Director (Acting), Astrophysics Division  
NASA Science Mission Directorate