FRIB Theory Bridge Program
Guidance for Applications
June 17, 2020

This document provides guidelines for those Universities planning to apply for a bridge faculty position with the FRIB Theory Alliance. The FRIB bridge program contemplates also the existence of staff bridge positions at National Laboratories. However, there are a number of differences in the application process for National Laboratories and, thus, we attach an addendum to address those differences in detail.

Motivation for the FRIB bridge program

The impressive list of theoretical developments needed to accomplish the broad scope of science at the Facility for Rare Isotope Beams (FRIB) requires an increase in Theory Principal Investigators, especially in critical areas identified in the FRIB Theory Alliance (FRIB-TA) proposal. This is the motivation for the FRIB Bridge Program: to enhance the opportunities of Theory Faculty hires at Universities or Theory Staff hires at National Laboratories. These positions will be modeled after those created by the RIKEN/BNL program at RHIC, with 50% of the cost being covered by DOE through the FRIB-TA and 50% by the home institution, over an initial period of up to 6 years or until the faculty member is granted tenure.

Description of the bridge faculty position

Bridge faculty are outstanding young theorists who develop exceptional theoretical research relevant to rare isotope science. Bridge faculty are 100% employees of their home institution, with all the associated benefits. Bridge faculty are expected to build a research group, attract federal funding and have teaching duties, just as all other faculty at their home institution. In addition, bridge faculty are expected to contribute significantly to the scientific program at FRIB and be spokespersons for FRIB theory, nationally and internationally. They must spend a significant amount of time at FRIB and, for this reason, teaching relief could be negotiated on a case-by-case basis.

Selection Process

The FRIB Theory Bridge committee is responsible for seeking institutional partners for the bridge program and making the selection of the institution that will be the home of each bridge position. The FRIB Theory Bridge committee is appointed by the FRIB-TA Board. If several institutions are selected, the committee may attempt to stagger them in time as appropriate.

In selecting physics departments to carry out the bridge faculty search, the main selection criterion will be that the science scope of the search is aligned with FRIB Science. The committee will select physics departments at research universities using additional criteria including the intellectual environment of the university, the diversity of its physics research program, the institutional record in mentoring young faculty and the access to good students.

Guidelines for applications

Departments interested in competing for a bridge position will be asked to prepare a brief proposal. The proposal should contain:

i) A letter from the dean of the college, with the commitment of a 50% salary match in the event that the institution is selected and a hire is made.

ii) A letter from the physics department chair, explaining how this new hire will fit into the long-term vision of the department and indicating the time-scale for advertisement, interviews and hire, in the event that this institution is selected.

iii) A letter from the main point of contact, providing background information on the quality of the graduate program and the nuclear physics research program if one exists. Examples of recently graduated students in nuclear physics should be given, if applicable. Information on junior faculty hiring in the department over the last decade, as well as the support provided by the department to these junior faculty needs to also be documented.

iv) Supporting documents as described in the template attached to this document.

v) A one-page statement from the potential chair of the search committee describing how the hiring department (or group) will address issues of diversity, equity and inclusion both during the bridge search process and the workplace experience of the to-be-hired junior faculty/staff.

Memorandum of understanding

Once a partner is identified, the FRIB-TA managing director works closely with the chair of the home physics department to develop the MoU that establishes the conditions of the appointment and the various contributions involved (in which the FRIB-TA provides 50% of compensation – salary, benefits and travel). This document is developed before the search takes place.

Recommendation

The home department is responsible for conducting the search process. The short list of interviewees should be communicated to the FRIB-TA through the chair of the bridge program committee. The selected candidate needs to be approved by the FRIB-TA Board. When and if this happens, the FRIB-TA managing director informs the FRIB laboratory director. The home department should inform the chair of the bridge program committee as soon as the selected candidate accepts the position so that it can be promptly announced to the FRIB-TA membership through the FRIB-TA webpage.

Guidance on the timeline for bridge position process

A. Chair of the FRIB Theory Bridge Committee sends out a call for bridge partners in mid-July, with an October deadline for applications.

B. In late October, the FRIB Theory Bridge Committee studies the applications, rank orders them and provides a recommendation to the FRIB-TA Board.

C. By mid-November, the FRIB-TA Board decides if and how to implement the recommendations of the FRIB Theory Bridge Committee.

D. During the later part of the year, the FRIB-TA managing director develops the MoU with the selected home institution.

E. The home institution conducts the search in the Spring: Advertisement is sent out in January, candidates are interviewed in the spring and a candidate is selected soon after that.

F. Information on the selected candidate is communicated to the FRIB-TA Board, and the Board approves the candidate.

G. The home institution makes the offer to the selected candidate to start in the Fall.

H. Immediately after the candidate accepts, the outcome is communicated to FRIB-TA Board, the FRIB laboratory director and the FRIB-TA membership.

Addendum for National Laboratories
October 4, 2016

Due to the important differences in the organization and funding of National Laboratories, an alternative procedure has been developed that enables these laboratories to participate in the FRIB Theory Bridge Program. First, the interested laboratory needs to discuss with the DOE, in order to ensure that the DOE intends to provide long-term laboratory funding after the bridge is complete.

Once there is a good understanding between the National Laboratory and the DOE, a proposal by the National Laboratory is submitted to the FRIB Theory Bridge committee. The proposal should contain the same items discussed in Section "Guidelines for applications" of this document, with the department chair and the dean of the college replaced by the corresponding authority at the National Laboratory.

If a National Laboratory is selected, MSU and this corresponding laboratory develop a MoU establishing that there will be a contribution from the FRIB Theory Alliance to the National Laboratory of up to a total of $500k over the entire bridge period, to support the FRIB theory bridge staff. The National Laboratory sets up the hiring process. If appropriate, the bridge proponents could seek to engage the corresponding Laboratory Fellowship committee in the event that such a fellowship application falls within the conditions and selection criteria outlined by the Laboratory involved. This has the potential of providing additional funds for the process. The laboratory discusses with the FRIB-TA board the parameters for the candidate search and then proceeds with the search.

As for universities, the laboratory must communicate the short list of interviewees to the FRIB-TA and, once the selected candidate is identified, she/he needs to be approved by the FRIB-TA Board. The final funding negotiations will take into consideration potential external funding and will commence among the laboratory, DOE, and MSU as soon as the candidate has been approved.

Supporting information for the FRIB-TA Bridge Program Application

This document should contain all relevant data concerning the potential home institution for an FRIB Theory Alliance Bridge position.

Faculty hires in the Department

Provide a table with the list of the Faculty members hired in the last decade by your Department, including the following information.

Faculty	Yr Hired (departed)	Yr Tenure	Area of Research	Yrs Funded	Faculty Mentor	Number of Students Total (PhD)(MS)
John Smith	1900(1920)	1906	Nuclear Theory	1901-1920	Peter Adams	10(5)(5)

Postdoctoral researchers in nuclear theory

Please provide a complete list of the postdoctoral researchers who have worked in nuclear theory during the last decade at your institution. Provide the name, duration of the postdoctoral contract as well as her/his current position/location. Please include their primary research area.

Nuclear Theory Long term visitors

Please provide a list of all long term visitors working in nuclear theory, including sabbatical visits, during the past decade at your home institution. Please provide their names, year, duration of stay as well as their permanent affiliation.

Current students

Please provide a list of current students working in nuclear physics (including experimental physics) at your institution. Include their names, the name of the advisor, the starting year, and the research topic.

PhD awarded in nuclear theory

Please provide a list with all the students that received a PhD from your institution during the last decade. Include name, year of PhD completion, Advisor and Current Position.

Recent start-up packages

Please describe the start-up packages offered to recent hires in your Department or describe the start-up package you expect to provide to the bridge faculty hire.