

Update from the FDS User Executive Committee

FDS Decay Station Workshop

November 16-17, 2023

FRIB Decay Station Users Executive Committee

Website <https://fds.ornl.gov/users/>

Current members of the UEC (September 2022 -):



Kay Kolos
(LLNL) – chair



Miguel Madurga
(UTK) - secretary



Heather Crawford
(LBNL)



Hendrik Schatz
(MSU, FRIB)



Ben Crider
(MSState)

The FDS UEC:

- consists of **five members**, selected from the Users Group membership, who are active or expected users of the devices,
- conducts the **day-to-day business** of the FDS Users Group,
- has **weekly/bi-weekly meetings** to discuss current and future initiatives and any FDS User Group issues,
- **quarterly meetings** with the FDS Coordination Committee to discuss the current status of the device and Collaboration/Users' needs.

Role of the FDS UEC

The FDS UEC aims to promote the interests of the FDS Users Group while helping to facilitate the impactful science that can be achieved using the FDS. In this capacity, the FDS UEC will:

- Communicate with the FDS Coordination Committee about the FDS status and available devices
- Update FDS Users concerning relevant technical and organizational developments, FRIB PAC proposal deadlines, etc.
- Organize discussions and workshops for proposal development
- Serve as the first point of contact for conflict resolution within the FDS Users Group
- Review and propose updates, based on user input, to the documents and guidelines covering the FDS collaboration

Collaboration documents

- FDS Users Group Charter
- FDS Initiator Guidelines
- Code of Conduct

New proposed versions at



Previous versions at <https://fds.ornl.gov/documents/>

FDS Users Group Charter

We propose changes to the FDS Users Group Charter, and welcome suggestions

FDS Proposals, Usage, Data, and Publication Rules:

The current implementation of the FRIB Decay Station is the FDS initiator (FDSi). The guidelines for use of the FDSi are captured in the FDSi Guidelines Document; this should be the reference for proposals, usage, data and publications.

previously:

FDS Proposals, Usage, Data, and Publication Rules:

The FDS is available to all members of the user group. The UEC will coordinate with detector owners or stewards and provide to the community the available detectors, conditions of use, and configurations for a given proposal cycle. The UEC will facilitate the development of FDS proposals and define appropriate data sharing and publication rules.

Updated Collaboration Agreement

Goals of updated FDSi document [FDS-Initiator-v11.pdf](#) :

- Update the document to reflect change (e.g. old document is written in future tense, was developed prior to FDSi implementation)
- Express a shared commitment to a best effort to make a core set of systems available to all members (in addition to other FDSi instruments where resources need to be negotiated with individual device owners)
 - Use this as a basis to make the case to funding agencies and facilities for adequate and additional resources
- Be more clear on obligations and expectations for performing experiments within the FDSi support framework (e.g. following these guidelines,)
- Clarify roles - FDS user group, UEC, proposal PI, FDSi coordination group, Technical points of contact, Equipment owners (FDSi group)
- Clarify authorship requirements for contributions to integration efforts
- For overlapping proposals only require some form of agreement - we should have all options open

The FRIB Decay Station (FDS) — an efficient, granular, and modular multi-detector system integrated under a common infrastructure — will be staged, beginning with equipment from existing detector systems and subsequently upgraded, increasing the energy resolution, granularity, and combined efficiencies along the way; this will increase the scientific output and extend the scientific reach towards the drip lines.

The FDS Initiator (FDSi) is the initial stage of the FDS for early FRIB experiments, and is a unique instrument within the FRIB community, built up from detector subsystems owned by multiple experimental groups, who also have the technical expertise for these devices. The guidance set out in this document is meant to provide a framework for proposal preparation and experiment execution which recognizes this complexity fairly and provides a means for FRIB users to conduct world-class decay spectroscopy experiments with the best equipment possible.

The FDSi group consists of device owners who have contributed a device to the FDSi. The FDS coordination group leads the integration of the various FDSi components and manages the associated integration resources. It communicates closely with the FDS UEC on technical decisions that affect FDSi broadly. FDSi users who own a device they would like to contribute should contact the FDS Coordination group for joining the FDSi group.

This document represents a joint agreement between the FDSi Coordination group, FDSi detector owners and the FDS UEC, which represents the wider community, and it outlines the opportunities, procedures, and conditions for using the FDSi.

Definition of FDSi Equipment Availability

- **Primary Detectors Subsystems** – Prior to each PAC cycle, FDSi Coordination group together with the FDS UEC and in coordination with the FDSi group, will provide a list of available “primary” detector systems (e.g. gamma-ray detectors, neutron-detectors, implantation detectors and TAS) for decay spectroscopy studies, which will be made available, subject to scheduling constraints, to any experiments ultimately approved. The FDSi group will do their best to work with collaborations and other stakeholders to come up with the resources needed to support the use of these devices. Technical points-of-contact for each detector system, and nominal array configurations will also be provided to FRIB for inclusion in the PAC call for proposals and to the user community. The list of equipment owners who contribute to the “primary” detector systems will also be provided through the FDS website to potential PIs (see later requirements in terms of collaboration inclusion).
- **Secondary Detector Subsystems** – A list of “secondary” detector systems, devices for which the potential PIs would need to collaborate and agree directly with the device owners to use, may also be provided along with points-of-contact for each device (e.g. GADGET). Availability of these systems may be resource limited.
- Users who wish to incorporate their own device not listed as a “secondary” detector into the broader FDSi system may also propose to do so. However, they should be aware that there may be limited resources from FDSi to support integration.
- Users interested in other configurations or additions not included in a given PAC call should communicate their needs with the FDS UEC prior to a future PAC cycle.

Collaboration Inclusion Requirements

- For proposals for experiments to be performed within the FDSi group framework, PIs should engage with the FDSi community, by joining the FDS user group and accepting the collaboration guidelines and rules, including the code of conduct and this document.
- All members of the FDS user group can submit a FDSi proposal, regardless of country or affiliation.
- PIs should invite as collaborators the FDSi Coordination group, designated technical points-of-contact and the equipment owners for each detector system they plan to use and other participants these experts may suggest. In addition, PIs are encouraged to take advantage of the technical expertise of the points-of-contact to provide technical review and input as proposals are developed.
- Individuals who contributed significantly to the overall integration effort as determined for each PAC call by the FDSi coordination group in consultation with the FDS UEC should be invited to participate in all FDSi experiments if they desire. The contact information for these individuals will be provided through the FDS website to all potential PIs. [Note - this is proposed to replace the FDSi Initiator Group role]

Proposal Coordination

- To allow most effective use of the FDSi, PIs should submit a short abstract (one-page limit) to the UEC that communicates the aim of their intended proposal prior to submission, preferably 30 days before a PAC proposal deadline. The UEC [and not the FDSi initiator group] will use this information to recommend possible bundling of proposals with goals that can be achieved simultaneously and to help coordinate merging or delineating overlapping proposals. On all issues surrounding duplicate or overlapping proposals, an agreement should be achieved before final submission.
- **Data Sharing and Publication Authorship:** Primary authorship and data sharing are to be negotiated and resolved by the proposal PIs and communicated clearly to all participants, detector points of contact and owners. All people who contributed, for example to proposal development, detector setup, experiment, analysis, or manuscript preparation, are to be included as authors following APS ethics guidelines. FRIB data management and authorship policies must be strictly followed for continued use of the FDSi. The experiment PIs are ultimately responsible in fulfilling any FRIB defined pre-experiment procedures but the FDSi group will make the best effort to assist in this process.

Updates to Guiding Documents, Detectors and Participant Lists

- The terms within this document can be revised at any time with the agreement of the FDSi coordination group and the FDS UEC. Any changes must be presented to the community at large in the context of a users group meeting or workshop, and cannot be considered as accepted until the users approve the proposed updates through an online ballot majority vote.
- Prior to each FRIB PAC call, the FDS Coordination group, together with the FDSi group and FDS UEC will review and update as necessary the detectors to be included as primary and secondary detectors for the FDSi for that PAC call.
- Also prior to each FRIB PAC call, the FDS Coordination group, together with the FDSi group and FDS UEC will review and update as necessary the lists of equipment owners and FDSi contributors who should be invited to participate in proposed FDSi measurements and ensure that these lists are updated and available on the FDSi website.

Parallel Request

The FDS user community recognizes the organizational complexity of the FDS Initiator (FDSi) system, which is built up from equipment owned by a broad range of groups across the low-energy nuclear physics community. We also recognize that while the equipment contributors are broad, the work of supporting the FDSi operations primarily falls to a few technical-lead groups and that this can constitute a significant investment of time and resources, including physics measurements in which these groups are potentially not invested.

However, in order to support the broadest possible decay spectroscopy effort and community, we feel strongly that the FDS collaboration must operate in such a way that a minimum set of “primary” detector systems are available to all members of the FRIB community. This commitment, and the burden that it places on the technical-lead groups of these primary detectors, must be offset by operating funds to support the service work of supporting the FDSi.

The FDS user community strongly endorses operations funds for FDSi be provided to support the efforts of technical lead groups in service of the broader community. This includes support for the primary detector subsystems that are broadly used by the FDS user group.

Proposed Code of Conduct [1]

The FRIB Decay Station (FDS) collaboration is committed to conducting research with professionalism, integrity, and respect for others. This code of conduct outlines the standards of behavior that are expected of all members of the collaboration.

Professionalism

We are committed to conducting our research in a professional and ethical manner, and to upholding the highest standards of scientific integrity. We will maintain accurate and detailed records of our research, and will strive to report our findings accurately and timely.

Safety and inclusion

Within the collaboration, psychological safety and inclusion are of the utmost importance. We are committed to maintaining a safe working environment that is welcoming to any individual who is interested in joining. By fostering an environment that promotes diverse and inclusive spaces for those in the collaboration, we can enhance scientific progress and the flow of ideas.

Proposed Code of Conduct [2]

Respect for Others

We are committed to treating all members of the collaboration, as well as members of the wider community, with respect and dignity. We will not tolerate harassment of any kind, including bullying, intimidation, violence, threats of violence, retaliation. We will also not tolerate any form of discrimination, including but not limited to discrimination based on race, gender, sexual orientation, age, disability, or religion. We will respect the privacy of others, and will not engage in any form of unauthorized access to data/information.

Commitment to the Broader Nuclear Physics Community

We recognize the importance of broader collaboration and teamwork in the field of nuclear physics. We will work collaboratively with our colleagues, sharing knowledge and expertise in a constructive and supportive manner. We will also respect the intellectual property rights of others, and will not use their ideas or findings without proper attribution.

Violations

Violations of the code of conduct for the FDS collaboration should be reported to the UEC. Violations can be reported to any member of the UEC, and member involvement in any follow up discussions will be determined after consultation with the reporter and kept within the UEC. Sanctions for collaboration members found in violation of this code of conduct will be determined by the UEC and may include warnings, exclusion from events and workshops, and expulsion from the FDS collaboration.