

PRad Charter

1 Goal

The goal of the PRad collaboration is to conduct the program of experiments using the upgraded PRad apparatus and technique. This includes the running of all currently approved and possible future experiments, the analysis of the data collected, and the development of new experiments.

2 Collaboration Structure

The collaboration will be led by the Contact Person and the Spokespersons' Committee. The collaboration will put together Working Groups for most major sub-systems including data analysis.

2.1 Contact Person (CP)

The **Contact Person** will formally be the principal point of contact between the collaboration, JLab management, and the larger physics community concerning PRad collaboration-related matters. The contact person of the experiment that is currently preparing to run and/or running will be the designated CP. **Responsibilities:** (a) To organize and chair collaboration meetings and (b) to provide leadership and to oversee all administrative functions for the Collaboration in between Collaboration Meetings (CM).

2.2 Spokespersons' Committee (SC)

The SC is the top organ in the Collaboration. It consists of all co-spokespersons of the experiment(s), the Hall-B leader as an ex-officio member, and, one staff member from Hall-B serving as the physics liaison (PL). The PL is typically appointed by the Hall-B leader. The SC advises the CP on scientific, technical, financial, and organizational issues. They are a group of senior collaborators who represent the full range of required technical expertise.

Responsibilities: (a) planning of the experiment(s), including the preparation of the setup, the run plan, and the execution of the experiment(s); (b) staffing the experiment(s) and the analysis process with an effective workforce; (c) discussion and approval of all physics results from the experiment(s), submission to CM for the final approval; (d) discussion and making decisions on all major financial issues of the experiment(s), and (e) future plans and directions for the Collaboration including the preparation of new experimental proposals.

1.1 Working Groups

The Collaboration also has a Working Group (WG) structure. The WGs will be set up by the SC. The WGs are initially focusing on individual subsystem commissioning and performance. The current WGs move from installation into commissioning into running and data analysis, it is expected that the WGs will evolve to meet tasks that arise. Data analysis for each experiment will also be conducted by a WG.

Responsibilities: (a) Organize and lead the installation, commissioning, and running of the experiment and the subsequent analysis process; (b) coordinate among all participating WGs; (c) organize regular WG meetings, and (d) coordinate between analysis sub-groups and organize the timely submission of the results to the Collaboration.

2 Collaboration Membership

Three membership classes are recognized, namely Senior, Postdoc, and Graduate Student. Senior members are typically faculty members (including tenure, tenure track, and long-term contracts) or laboratory staff members. Postdoctoral research fellows are attached to a specific institution, typically supported by research funds. Graduate Students are students who have passed whatever requirements are in place at their home institution to start research, as declared by their supervisor. Unless otherwise specified, graduate students will be assumed to be PhD candidates. Undergraduate students may become members, depending on the level of their commitment and contribution.

2.1 Addition of New Members and/or Institutions

New Postdocs or Graduate Students are added to the collaboration at the request of their supervisor. It will be understood that the supervisor acknowledges that these new members will be contributing towards their institution's responsibilities on PRad-II, X-17, and other experiments using the PRad apparatus.

New institutions and/or senior members can be added through the endorsement of the CP or the SC. The membership request should include a statement of commitment to the experiment.

All member institutions are expected to perform service work in the form of the appropriate number of shifts depending on the size of the group and provide run coordinators when appropriate. Service to the experiment can also take the form of maintaining sub-systems during the duration of the experiment.

Each member institution will be asked to cover a fixed number of shifts per collaborator from that institution. The exact distribution of the shifts within the collaborators from an institution will be left up to the PI from that institution.

1 Publications & Talks

All talks/presentations in professional meetings, workshops, and conferences representing the Collaboration (excluding talks/seminars in Universities and other institutions) need to be approved by the Collaboration well before the talks are presented.

All publications need to be approved by the Collaboration before they are released. Publications also require JLab approval.

2 Collaboration Meetings (CM)

The CM is the primary forum for the Collaboration. It will be called once every three months, on average, or whenever necessary, by the CP in consultation with the SC. The CP will chair these meetings. Responsibilities: The CM discusses and makes decisions on all major issues for the Collaboration to: (a) effectively carry out the experiment(s); (b) analyze the experimental data and extract the physics results; (c) plan and approve publications; (d) plan and approve new experimental proposals by the collaboration, and (e) deals with membership issues and other general organizational matters.

3 Code of Conduct

It is the policy of the PRad Collaboration that all members will conduct themselves in a professional manner consistent the APS statement on conduct at meetings, located at:

<https://engage.aps.org/dnp/governance/code-of-conduct>

Violation of the Code of Conduct could lead to the termination of collaboration membership.

4 Bylaws, additions & Revisions

This charter is adopted by a two-thirds majority vote of the Collaboration. This document may be amended as necessary and approved in the collaboration meetings. Revisions will require a two-thirds majority vote of the Collaboration for approval. Any collaborator who proposes modifications to the bylaws will bring this to the attention of the SC. A vote on the revision will be held at the next CM.

Suggested Working Groups and Chairs

PRad Collaboration's Working Groups

(a draft suggestion to SC, November 04, 2024)

- 1) **Calorimetry** Working group. Chair: Ashot Gasparian
- 2) **Tracking Detectors** Working Group. Chair: Nilanga Liyanage
- 3) **Target** Working Group. Chair: Xiangdong Wei
- 4) **Beamline** (including Tagger) Working Group. Chair: Eugene Pasyuk
- 5) **DAQ and electronics** Group. Chair: Chao Peng
- 6) **Data Analysis** Working Group (on-line and off-line). Will have different chairs for different experiments.
 - a) for the PRad-II experiment: Chair: Weizhi Xiong
 - b) for the X17-Search experiment: Chair: Tylor Hague
- 7) **Presentations** (conferences/workshops) Working Group. Chair: Haiyan Gao
- 8) **Publications** Working Group. Chair: Dipangkar Duta

Template Invitation Letter to Join the Experiments/Collaboration

Dear XYZ,

Our PRad-II and X17-Search experiments are tentatively scheduled to run back-to-back in Hall B from November 2025. Our collaboration is currently actively preparing the experimental setup for this run including detectors, beamline elements, DAQ, electronics, etc. We will collect data with an electron beam for about 200 calendar days which will require about 1200 shifts, about 30 run coordinator weeks, and experts on-call. To run these long but high-impact experiments we require assistance/collaboration from experienced physics groups such as yours.

Please consider joining our collaboration to successfully run and complete these experiments.

Your collaboration in these experiments can be very flexible. It could be any of the following types: (a) full membership in our collaboration; (b) "satellite" participation in the experiments' run period without being a formal member of our collaboration.

For your initial information, the PRad-II/X17 collaboration Charter together with the two proposals can be found at:

https://wiki.jlab.org/pcrewiki/index.php/Main_Page

The minimum number of shifts per person to be a co-author in any upcoming publication related to these experiments is 8 shifts for any one experiment and 12 for both experiments. Note that shifts will be conducted in blocks of 4 shifts per institution which is common practice in Hall B.

We are planning to have our collaboration meeting on Monday, November 11 at JLab, room F113 (a day

before the CLAS collaboration meeting). It will be in a hybrid meeting but in-person attendance is preferred if possible. You are more than welcome to participate in this meeting with your suggestions

and discussions. The indico-based meeting website is active at:

<https://indico.jlab.org/event/907/>

Please let me know if you have any questions or need more clarification on this matter.

Thank you,

Ashot Gasperian

for all PRad-II/X17 co-spokespersons

Initial Responses to our Call

- 1) Michael Kohl "satellite" option
- 2) Alessandra Filippi working on the answer
- 3) Bill Briscoe "Yeas"
- 4) Larry Weinstein No
- 5) Moskov Amaryan Yes
- 6) Igor Strakowski Yes
- 7) Steffen Strauch No
- 8) Yordank Ileva "satellite" option
- 9) Ralf Gothe
- 10) Maurik Holtrop
- 11) Axel Schmidt
- 12) Philip Cole Yes
- 13) William Phelps
- 14) Marko Battaglieri
- 15) William Brooks
- 16) Or Hen "kind of"
- 17) Gabriel Niculescu "Yes"
- 18) Ioana Niculescu "Yes"
- 19) Jorg Reinhold
- 20) Kyungseon Joo No
- 21) John Arrington No
- 22) Sebastian Kun
- 23) Silvia Nicolai
- 24) Eric Voutier
- 25) Charles Hyde chyde@odu.edu
- 26) Stephen Bueltmann sbueltma@odu.edu
- 27) Jerry Gilfoyle ggilfoyl@richmond.edu
- 28) Tongtong Yes, through Rafo
- 29) Holly Szumila-Vance, FIU Yes