

April 11th, 2019

To: Users of TRIUMF's Molecular and Materials Science and PIF & NIF Programs

Subject: CALL FOR PROPOSALS FOR THE TRIUMF MOLECULAR AND MATERIALS SCIENCE EXPERIMENT EVALUATION COMMITTEE

The DEADLINE for receipt of New Proposals and Progress Reports for μ SR, β -NMR and PIF & NIF experiments is firm at:

**Tuesday, May 14th, 2019
(Midnight (23:59), Vancouver time)**

The next evaluation of proposals by the TRIUMF Molecular and Materials Science Experiments Evaluation Committee (MMS-EEC) will take place on:

Monday, June 17th and Tuesday, June 18th, 2019

If you would like to submit a proposal to be reviewed at the June 2019 MMS-EEC meeting, please be sure to follow the instructions below and adhere to the deadline.

There are new Terms of Reference for the MMS-EEC that describe the process of applying for beamtime in greater detail. This document can be found at:

<https://www.triumf.ca/research-program/planning-experiments/how-submit-proposal/mms-eec-process>

Below are the steps you need to follow to submit a new proposal or a progress report.

Step 1: Do you need to submit a proposal?

- **New Experiments:** All new experiments must submit a proposal to be approved by the MMS-EEC. ***Proceed to Step 2.***
- **Approved Experiments:** Shifts awarded by the MMS-EEC expire after 2 years if they have not been used. This means that approved experiments that have not been evaluated since the June 2017 MMS-EEC meeting need to submit a progress report to keep any previously assigned shifts or to apply for more shifts for the same project. *Progress reports will only be considered if they are directly related to the original proposal.* If this is the case ***proceed to Step 4.*** If the proposed research is significantly different from the original proposal a new experiment number will be needed. If this is the case ***proceed to Step 2.*** If there are any questions about whether a new experiment number is necessary, the spokespersons should discuss the matter with the MMS-EEC Scientific Secretary (Iain McKenzie iain.mckenzie@triumf.ca)

Step 2: Request a New Experiment Number

Email the Science Division's office at sciencediv@triumf.ca. You will need to include the Spokespersons' name(s) and contact information as well as the title of your proposed experiment and whether it is for μ SR, β -NMR and PIF & NIF experiments. The Science Division's Administrative Assistant (Allayne McGowan) will issue you an experiment number. Please note:

- The Spokesperson of a proposal is expected to be an active participant in the experiment and invested in its outcome. They are considered to be the contact person for TRIUMF in case of clarification or questions. The Spokesperson will typically be the leader of the proposed research project and will also be considered to be a local representative of a research collaboration, unless otherwise identified. This is important in particular, when the spokesperson is not an expert on μ SR, β -NMR/ β -NQR, PIF & NIF or other TRIUMF experimental techniques. In some cases, it may be appropriate to identify two spokespersons (e.g. one external User and one internal to TRIUMF), but more than two spokespersons should be the exception and should be discussed in advance with the Scientific Secretary.
- Spokespersons can submit a single proposal to request beam time for μ SR experiments on different instruments or different sample environments. Spokespersons must submit separate proposals for μ SR and β -NMR experiments. Spokespersons may submit a single proposal to request beam time on different PIF & NIF beamlines.

New TRIUMF users must proceed to Step 3 and existing TRIUMF users can proceed to Step 4.

Step 3: Request Access to the Spokespersons' Portal

In order to have access to the Spokespersons' Portal, we are required to register you and complete an online visitor form for you. Please contact the Science Division's office at sciencediv@triumf.ca to register. We will be sending you an email that will have your username for your TRIUMF identity (TRIUMF Login) and a link to a form that will need to be completed (the email will come from mis@triumf.ca). You will be granted Electronic Access Only. Iain McKenzie, the MMS Scientific Secretary, will be your main point of contact.

Proceed to Step 4.

Step 4: Prepare Your Proposal

Once you have your experiment number and a TRIUMF Login, you can proceed to the Spokesperson Portal (<https://mis.triumf.ca/science/experiment/spokesperson/list.jsf>) and prepare and submit your new proposal or progress report. Please be sure to fill out all of the information relevant to your experiment. Be sure to upload the PDF of your Detailed Statement and Spokesperson Publications.

We also provide screen-by-screen instructions: please click on the following link:
https://www.triumf.ca/sites/default/files/EEC%20Online%20Instructions_1.pdf

Please remember TRIUMF has moved to an 8-hour shift pattern; make sure your requested beam time uses 8-hour shifts.

Detailed Statement

You are required to submit a Detailed Statement of Research describing the proposed research. PLEASE NOTE: There are new templates (MS Word and LaTeX) for the MMS-EEC Detailed Statement of Research that can be downloaded from:
<https://www.triumf.ca/research-program/planning-experiments/how-submit-proposal/mms-eec-process>. The same template is used for both new proposals and progress reports.

The length of the Detailed Statement of Research **must not exceed 4 pages** (with figures and references included). The font size must be 12 pt. A proposal that exceeds the 4-page limit and/or uses smaller fonts will not be evaluated by the MMS-EEC. The following information must be included:

A. Background and Context

Provide a concise summary of the scientific problem under investigation including references to literature where appropriate. Explain why the proposed research is interesting and timely. Discuss the wider relevance or impact of your work and keep in mind that not all review panel members are experts in the field. This section should not exceed 1 page.

B. Description of the Proposed Experiment

Please describe the aims of the experiment – what do you hope to learn, what outcomes you expect and why these are important?

You must provide a clear justification for the proposed experiments and, specifically, a justification for using μ SR/ β -NMR techniques. What unique information will μ SR or β -NMR give you that you can't get from other techniques? All competitive measurements at other laboratories and with other techniques should be mentioned.

If you are planning to submit a proposal that is related to one reviewed at a previous MMS-EEC meeting you must address any reviewer concerns from the previous proposal in your new proposal.

Please discuss in the proposal if you need any specialized facility equipment or if you wish to use your own equipment. Please note, that non-facility equipment will require a safety review, which is described in TRIUMF Safety Note 3.3. This can be submitted after the proposal is accepted but must be completed well before the beam time.

C. Preliminary Work

Provide descriptions of material synthesis, structural characteristics, sample characterization such as transport measurements, NMR, X-ray or neutron scattering and any modelling or simulations that relate to the proposed research (when applicable).

Provide results of preliminary work carried out using μ SR, β -NMR or other techniques and the relationship with your proposed experiment.

D. Beam Time Required

It is important that the beam time requested be justified. Please provide an itemized list of the measurements you propose to perform with time estimates in terms of number of 8-hour shifts required for each measurement. If you are unsure about the amount of time required for the proposed measurements please contact the Scientific Secretary (Iain McKenzie iain.mckenzie@triumf.ca), a [CMMS facility scientist](#) or the PIF & NIF facility coordinator (Mike Trinczek trinczek@triumf.ca)

E. Data Analysis and Interpretation

It is important to clearly outline in the proposal how the scientific and physically-relevant information can be extracted from the collected data. Please provide information how this is planned and in particular about the model(s) that will be used for the data analysis and interpretation of results. Equations can be used. It is typically useful to provide details and for example do not just state the name of the analysis software that will be used.

F. References

Please provide references (max 10) in the format:

[1] R. L. Garwin et al. Observations of the Failure of Conservation of Parity and Charge Conjugation in Meson Decays: The Magnetic Moment of the Free Muon. Phys. Rev. 105, 1415 (1957) <https://doi.org/10.1103/PhysRev.105.1415>

References must contain the titles and an active DOI link to published papers. Papers published on <https://arxiv.org/> are acceptable. References to unpublished work will not be considered.

Spokesperson Publications

In addition to the Detailed Statement, a single page list of selected publications by the spokesperson(s) should be included. The papers listed should be of relevance to the scientific nature of the proposal. This list should include (i) published papers which present results obtained from the given (and previously approved) beam time and/or (ii) papers that pertain to investigations from other experiments of relevance to the proposal (including μ SR or β -NMR), but not directly resulting from beam time allocation for the given proposal. The committee does not want to see a spokesperson's career-long publication list attached to the proposal. **A proposal that includes more than 1 page of publications from all the spokespersons will not be evaluated by the MMS-EEC.**

PLEASE NOTE: There are new templates (MS Word and LaTeX) for the MMS-EEC Spokesperson Publications that can be downloaded from: <https://www.triumf.ca/research-program/planning-experiments/how-submit-proposal/mms-eec-process>

A few further things to note:

- The MMS-EEC no longer accepts presentations. The spokesperson(s) must ensure the proposal contains all the relevant information for the committee's deliberations as no additional material can be submitted.
- Proposers should check to see that the work that they propose has not already been submitted to TRIUMF and approved for another μ SR or β -NMR group. The list of approved experiments can be found here: <https://mis.triumf.ca/science/experiment/list.jsf> **Under most circumstances, the MMS-EEC will not approve separate, independent groups to study the same materials under very similar experimental configurations or try to divide the study of a particular material among two (or more) μ SR or β -NMR groups proposing relatively minor variations in experimental configurations (i.e., sample orientation, applied fields, etc.).**

Once the submission is complete *proceed to Step 5*.

Step 5: Review and Submit Your Proposal

When your new proposal or progress report is complete you will need to go to the "Review for Submission" section and click "Submit Report to the EEC" (you are able to edit your submission until the deadline, you will need to click the "Retract submission" button, then edit your new proposal or progress report, but please remember to hit submit when you are ready to submit).

Any problems during the submission process should be reported to the Science Divisions office at sciencediv@triumf.ca (call 604-222-7438 for assistance).

Communication Between the MMS-EEC and Spokespersons

The committee can request that a Spokesperson be available during the meeting either in person, via internet conference or telephone to answer questions from committee members. In exceptional circumstances Spokespersons can request to talk to the committee during the meeting. A request should be sent to the Scientific Secretary prior to the meeting and will be considered by the committee Chairperson. The Spokesperson is not to bolster the scientific case but can provide information about organization and logistics that is pertinent to the proposal / progress report, but which could not be included in the written submission.

The following direct links should be helpful:

Link to Call for Submissions:

<http://www.triumf.ca/research-program/planning-experiments/experiment-approval/call-for-submissions-agendas>

Link to Guides and Forms:

<http://www.triumf.ca/research-program/planning-experiments/how-submit-proposal/mms-eec-process>

Link to EEC Committee Information:

<http://www.triumf.ca/research-program/planning-experiments/experiment-approval/about-molecular-materials-science>

Members of the MMS-EEC are:

Chair: Robert Scheuermann – Paul Scherrer Institute (Villigen, Switzerland)

Secretary: Iain McKenzie – TRIUMF and Simon Fraser University

Members: Cristian Batista – University of Tennessee, Knoxville (Knoxville, USA)
Rebecca Flint – Iowa State University (Ames, USA)
Sean Giblin – Cardiff University (Cardiff, Wales)
Young-June Kim – University of Toronto (Toronto, ON, Canada)
Mark Lumsden – Oak Ridge National Laboratory (Oak Ridge, USA)
Jun Sugiyama – Toyota Central R & D Labs Inc. (Nagoya, Japan)