**Computing Resource Access for External Researchers**

## 1. Purpose

To outline an operational policy for evaluating and approving requests from external researchers for access to Vector's computing resources.

## 2. Scope

Vector receives requests from external researchers (e.g., either affiliates, students or faculty) to access the Institute's computing resources.

This operational policy provides a guide for Vector to assess and approve requests on a case-by-case basis.

*Illustrative Cases*

- A visiting graduate student had spent a summer semester at Vector and has since returned to their home institution. The graduate student was working on a project during their assignment at Vector, but a final portion of the project remains to be completed. The graduate student outlined a need in writing for a time limited access to specific GPU cluster with an aim to finish their paper. The student is no longer at Vector (as defined by their summer term agreement) but had requested continued access to Vector's resources as a special case. The request was granted, as the graduate student had been sponsored by Vector, and the project aligns with Vector's vision and mission.

- A Vector Faculty Member has agreed to supervise students on a part-time basis (which could be either an undergraduate or a graduate student on an internship or visiting basis) to work with them on a project. The Vector Faculty Member has requested access to defined CPU compute for their part-time student, with a clearly defined time-period and objective for the collaboration. The request was granted, as the request was supported by a Vector Faculty Member, and the request does not impede other ongoing projects or work in Vector. The time limit allows Vector to monitor the project rather than granting access to computing resources in perpetuity.

- An external researcher located in a different country has proposed a cloud-based collaborative project with a Vector graduate student. The Vector student has approval from their Vector Faculty Member to pursue this project. The student has requested $2,000 in cloud-computing credits for the project, to be spent jointly with the external (non-Vector) student. The request was granted, as the request was supported by a Vector Faculty Member, and the amount requested can be accommodated with cloud credits that have been donated to the Vector Institute as part of an ongoing experiment to monitor demand and resulting usage.

- A partner institute has requested access to a Vector GPU workstation linked with a product demonstration on AWS cloud for an evening event. The Vector Institute is a co-host of the event and has significant interest in the presentation. The request is being granted since it is a corporate request, and the project aligns with Vector's vision and mission.

- A Vector Faculty Member requested access to computing resources for a family doctor. The doctor has no university status and no known research standing other than an association with a Vector Faculty Member. The request was denied, as providing access to personnel for either non-research purposes or requests with no clearly defined time-

period and objective cannot be properly evaluated. The request could be re-considered at a later date if additional information or material was provided.

- A Vector Faculty Affiliate had requested access to local computing resources upon hearing about the invitation for affiliates to use Vector cloud computing credits. The request was not granted as local resources are currently in high-demand among Vector researchers. Requests for local resources may be re-considered in the future if demand from Vector researchers decreases.

## 3. Operational Policy

The decision on sharing Vector's computing resources generally depends on the scope and impact of the request. The following guidelines can be used to prepare an impact assessment to assist with the decision-making.

The requestor (affiliate, student, etc.) is asked to respond to the following questions, and the form will then be endorsed by the sponsoring faculty supervisor.

| Criteria | Description of Instruction | Example Request |
|---|---|---|
| Resources | Clearly state what resources need to be provisioned. To note, cloud resources are easier for Vector to provision at the moment due to a low subscription. | 1 local GPU, or $500 for AWS EC2 instances. |
| Duration | Define the period in which the resource(s) would be in use. Concrete time periods (e.g., 6 weeks) with a specific start and end date provide predictability and an increased probability of granted access. | A student required access to Azure credits and CPU server for approximately 4 weeks, from January 1 to 30. |
| Timing | Certain times of the year (e.g., conference deadlines) have been prone to increased resource usage, so the timing of the request will play a part in determining whether resources are shared. Priority will go towards Vector researchers. Resources requested around off-peak periods such as summer are more likely to be granted. Although possible, requests during high-peak periods, e.g., leading up to a conference deadline, are less than ideal. | Resources access requested 2 weeks before the NeurIPS conference paper deadline. |
| Amount | Quantify the amount of resources required. Requests for amounts that may have significant impact on the work of Vector researchers will be carefully assessed. | 2 dedicated CPU servers and five licences for MuJoCo software. |

| Recognition | Define the anticipated outcome that sharing resources with the external researcher will have for Vector. | A joint paper is submitted or published as an outcome of this project. Donation from Vector is noted in the paper. |
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| Relationship | Define the relationship between the researcher and Vector. | Former Vector summer student. |

## 4. Decision Process

Decisions on granting access to Vector's computing resources shall be made on a case-by-case basis. Information gathered from the questionnaire above will be used by Vector's scientific computing team to prepare an impact assessment.

A response shall be provided to the requestor upon the completion of the impact assessment and consultation with the Research Director.

A list of active/on-going access requests should always be available to the Vector Faculty Members for the purposes of transparency and information sharing. In the case where either a specific request or the cumulative value of requests has a significant draw on Vector's computing resources, a report shall be provided to Vector's Research Director and senior management team.

The scientific computing team is responsible for highlighting usage patterns with the Vector Faculty Members.