

Computation and Data Committee Report to the CASCA Board, May 2021

Current Committee Membership:

Catherine Lovekin (Mount Allison) (chair)	Term ends: 30 June 2021
Pauline Barmby (Western)	Term ends: 30 June 2021
J.J. Kavelaars (HIA/NRC/CADC)	Term ends: 30 June 2021
Adrian Liu (McGill)	Term ends: 30 June 2022
James Wadsley (McMaster)	Term ends: 30 June 2021

The current committee members, with the exception of Adrian Liu, are all scheduled to rotate off the committee. James Wadsley was originally scheduled to rotate off this past June but has agreed to serve one more year on the committee for continuity. Catherine Lovekin is willing to serve another term as chair and J.J. Kavelaars has also agreed to serve another term, but we need to recruit new members. It would also be beneficial if the committee had a more staggered rotation to smooth future transitions.

Compute Canada/NDRIO

NDRIO is continuing the consultation process as it works towards a strategic plan and service delivery model. As part of this, NDRIO sent out a researcher needs assessment survey earlier this year. This survey asked for information on current and projected usage for data storage, ARC, and research software. The survey link was circulated to the CASCA mailing list.

The Canadian astronomy community submitted three white papers to NDRIO's call: This committee submitted a white paper on behalf of CASCA, Dr. Kristine Spekkens submitted a paper on SKA, and Dr. J.J. Kavelaars submitted a white paper for the CADC. In addition, NDRIO was given a copy of CASCA's LRP.

NDRIO is hosting a series of town halls from May 4th to May 7th. As a committee, we have ensured that at least one of us is attending each town hall, so there will be good representation from astronomy.

The work of NDRIO's three working groups has continued. These groups are working on current state position papers, focused on the three pillars of DRI: Advanced Resources for Computing (ARC), Data Management (DM), and Research Software (RS). In addition, the working groups have been consulted on the needs assessment survey, the white paper analysis, and for help organizing the town halls. Dr. Catherine Lovekin is serving on both the ARC and RS working groups. Dr. Erik Rosolowsky serves on NDRIO's Researcher Council.

As they develop the service delivery model, NDRIO has hired Deloitte to help them. The Deloitte team has been given access to the working group's position papers, the community-submitted white papers, and the results of the needs assessment survey. Deloitte also hosted a

number of small stakeholder consultations to discuss what works well about the current funding and service delivery model, and where improvements need to be made. Dr. Catherine Lovekin and Dr. J.J. Kavelaars have participated in these consultations.

NDRIO is expected to release its initial funding opportunity in early May. The call is aimed at projects that will bridge the gap between ARC, data management, and research software, and encourages interdisciplinary projects and those from social sciences and humanities.

NDRIO took over the operations of the Portage network on April 1, and is expected to take over all remaining Compute Canada operations in the spring of 2022. Portage provides guidance on data repositories and data management. Dr. J.J. Kavelaars serves on the Portage Data Repositories Expert Group (DREG). For the immediate future, current allocation methods will remain unchanged until that time. A new process for applications will be developed in the fall of 2021, and that process will replace the existing Compute Canada structure in 2022.

Core Trust Seal is certification process for data repositories. CTS certification provides evidence to policy makers that research data is being stored and distributed following policies and processes that follow the 'FAIR' data principles and following best practices for open-data. The Portage DREG is currently guiding an initial cohort of Canadian data centres through the process of CTS certification. The CADC, which was one of only 3 Canadian data centres certified under the predecessor of the CTS, is participating in this initial certification cohort.

Tri-Council Data Management Policy

NSERC and the other granting agencies have now announced a new data management policy. The policy is mainly focused at an institutional level, but it may be useful for the committee to look at the impact on astronomy. It may be helpful for CASCA to provide templates members can use in explaining their data management to institutional research offices.

COVID-19

As with the rest of activities outside and inside astronomy the Computation and Data Committee has experienced a work slow-down due to COVID issues. In particular, and highly justifiably, the focus of Compute Canada compute centres and SSC support shifted rapidly to supporting the development of research programs for COVID. This pivot, coupled with social distancing and work-place isolation, has put a number of projects on hold or slowed them considerably. The immediate impact has been a slowing of development of new capabilities for CANFAR and significant slowdown in the development of new archive capacity within the CADC. The telescopes and projects that CANFAR/CADC serve have also seen a substantial drop in their data rates and extensions of project deadlines. As such, the delays which are being seen in deploying new computing and storage have largely been compensated for in delays seen at the data provider ends. The Computation and Data Committee expects that in the end normalcy will return and there will not be any long term negative impacts due to COVID shutdowns.