UC44 Recommendations

The UC, on behalf of the community, thanks ESO for enabling the 44th UC Meeting in a remote connection format. The UC also thanks ESO for following up on last year's recommendations. The new list of recommendations is based on feedback from users and the discussions during the online meeting (UC only and jointly with ESO).

The recommendations are grouped into topics within which they are listed in order of priority.

General

UC44.R01: The primary role of the UC is to communicate the Users' opinions to ESO. However, the UC's role is also to assist ESO in informing the community about ESO operations. We recommend that ESO reinforces this role by keeping the UC informed about major and/or sudden operation disruptions/changes (e.g. the time of deployment of the distributed peer-review (DPR), changes to the carry-over policy, observatory closures, etc) affecting ESO users when this is not immediately communicated via ESO newsletters or news updates on ESO web-pages. This will allow the UC members to communicate up-to-date information to the whole community and respond adequately to individual users.

UC44.R02: The UC recommends that ESO makes every effort to find alternative arrangements, such as increased use of designated visitor mode, for visiting astronomers affected by travel restrictions also beyond the COVID-19 crisis. In general, we recommend that ESO offers dVM observations also for runs longer than one night as an option for users who wish to minimise travel times and carbon footprint.

UC44.R03: The UC recommends to continue remotely connecting with the broader ESO user community and expand online activities to include schools, meetings, conferences, workshops and seminars.

Distributed Peer Review

UC44.R04: The vast majority of Users who completed the poll have a favourable opinion on DPR, while expressing two main concerns: On the confidentiality and on the level of reviewer expertise. We recommend that ESO explores mitigating strategies to preempt potential backlash from the community concerning these two concerns. This may include making public the guidelines for reviewers, clarifying to proposers which criteria will/will not be taken into consideration, and communicating the process by which reviewers are selected.

Operations, Data, Pipelines:

UC44.R05: In connection with the COVID-19 impact, the UC recommends monitoring and reporting via newsletters on the impact and losses (e.g. estimated time losses and delays) of the P105 proposals due to the shut-down of facilities. We recommend ESO to consider carrying over both visitor- and service mode A-ranked P105 programmes as for several periods, with priorities based on the scientific merit of the affected programmes.

UC44.R06: Continue exploring virtualisation options for the pipelines (Anaconda/Conda, Docker, cloud), to support a range of operating systems and facilitate installation.

UC44.R07: Prioritise the implementation of ETC in p1 and achieve better migration of information between p1 and p2. We note that ESO released the new p1 tool without ETC implementation as recommended by the UC in previous meetings. Feedback from the community from the 2020 UC poll sends a clear signal that users would greatly appreciate the ETC implementation as ESO originally envisioned.

UC44.R08: to prioritise the following recurrent user suggestions for improvements of the pipelines. *i)* Telluric correction, *ii)* Documentation of pipeline parameters, *iii)* Optimal spectral extraction, *iv)* Coadding 1D and 2D (echelle) spectra, *v)* Absolute flux calibration.

UC44.R09: Improve the ESO archive data calibration selection to make it more evident which calibration files types are available for download and which files and types are missing in the selection.

Time Domain:

UC44.R10: Improve the response time and communication and provide timely updates on the status of ALMA triggers to the Users. Provide quick access for users to the raw uncalibrated data, and QA0 and QA0+ results as soon as that become available.

UC44.R11: to update the options included in the ETC to *i)* include more of the frequently used stellar template spectra in the ETC (e.g. cooler stars below 4000K). *ii)* Enable short exposures for the ETC estimates. *iii)* Include windowing mode for finding charts in p2.

UC44.R12: Explore the implementation of a high time-resolution optical imaging mode particularly for ToO + RRM observations, for example, as part of the ongoing FORS upgrade.

UC44.R13: Add flexibility for balancing allocated time for ToO and RRM programs across two or more periods. Explore the option to carry over a fraction of ToOs for very rare events for already allocated time.