## UK contributions to Rubin commissioning

Graham P. Smith

LSST:UK Commissioning Coordinator [and Co-chair, Rubin Strong Lensing Science Collaboration]





gps@star.sr.bham.ac.uk

## Overview / reminder of Rubin Project timescales

- Survey operations:
  - commence no earlier than October 2023
  - no more than 6 months later (90% confidence)
  - main risk: coronavirus impact on telescope and mount assembly during upcoming Chilean winter
  - we should know more in late 2021
- Science Verification and Validation:
  - sustained 2 month on-sky observing with LSSTCam
  - no earlier than July—September 2023
- Opportunistic on-sky commissioning observations:
  - ComCam during 2022
  - LSSTCam in first half 2023

## Towards a UK role in Rubin commissioning as members of the SITCom team

Call for expressions of interest

- Summer 2020
- 23 responses from 14 groups, including:
  - Analysis of science verification data including machine learning and eyeballing
  - Operational rehearsals
  - Commissioning of active optics including strong lensing targets

Commissioning Support in UK inkind proposal

- November 2020
- All expressions of interest represented in proposal
- A single team taking direction from US
- On-summit and remote data analysis contributions
- Focus on helping Rubin team pass Operational Readiness Review
- Accepted in full, emphasising experienced individuals on summit (>=2 x 3month tours), and significant training

Call for detailed proposals for UK contributions

- Summer 2021
- Precise timescales currently
  under discussion
- Proposals to be jointly reviewed with Chuck Claver's SITCom team
- Overall aim: selection of UK team complete before end of 2021
- More details will be announced no later than NAM in late July

## Key take aways:

- We are on track to join Rubin's System Integration, Testing and Commissioning (SITCom) team via the in-kind process
- Rubin colleagues prioritise us helping them to pass Operations Readiness Review, not helping us commission our science pipelines
- UK team expected to be **embedded within SITCom**, with work delegated through their management structure (and me) to the team
- Explicit requests for help on:
  - Commissioning of active optics sub-systems, drawing on UK's VISTA expertise
  - Analysis of on-sky data and cross-correlation with telemetry
- Encouraging response to new ideas put forward by UK community (no detailed discussion yet):
  - Visual inspection of on-sky commissioning data
  - Operational rehearsal support
- I am continuing to advocate for (a small number of) **early career** colleagues to participate in on-summit commissioning
- [1] Stay tuned for call for detailed commissioning proposals, [2] come to the Early Rubin Science and Commissioning session at NAM, [3] engage with your Science Collaboration