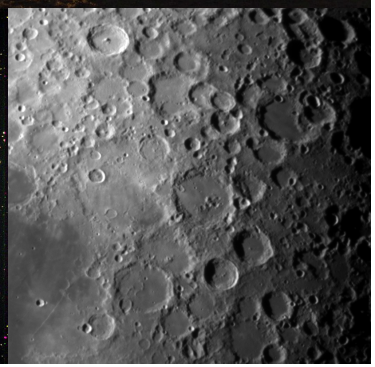
a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA

COLUMBIA UNIVERSITY
IN THE CITY OF NEW YORK

- 35-centimetre robotic telescope installed at CTIO
  - Achieves 15th-magnitude within 5 seconds,
  - Readout time of 2.5 seconds,
  - 0.25 square degree field of view
- 8mm aperture all-sky camera
  - Achieves 7-magnitude within 1 second (S/N=20)
- We can identify a source in much less than 1 second.
- Strategy:
  - Follow up GRB triggers (only one field typically)
  - Follow up triggers from all-sky camera (one field)
  - Follow up GW triggers (many fields)
- Key for GW: knowing if there is a new optical source.
- If a new source is found, stop searching and start integrating for about 15-20 minutes with exposure times proportional to time since the trigger.
- If no source is found, continue search with proportional exposure times and derive upper limits.
- Derive upper limits or detections from the all-sky camera (from 30 minutes before the trigger)
- Share results with partners within 30-60 minutes of the alert.