

MeerKAT Commensal Survey Figure of Merit Table

Tyler Cox

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| | MeerKAT (2020) |
|--|-----------------------|
| TELESCOPE PARAMETERS | |
| Telescope(s) | MeerKAT |
| Antenna Diameter (D) [m] | 13.5 |
| Number of Antennas per Telescope | 64 |
| Aperture Efficiency (η) | 0.8 |
| System Temperature (T_{sys}) [K] | 30 |
| SEARCH PARAMETERS | |
| Number of Stars | 10^6 |
| Distance to Stars [pc (Ly)] | 192.5 (628) |
| S/N Threshold | 10 |
| Spectral Resolution (δ) [Hz] | 3 |
| Total Bandwidth ($\Delta\nu_{\text{tot}}$) [MHz] | 660 |
| Instantaneous Bandwidth ($\Delta\nu_{\text{obs}}$) [MHz] | 800 |
| Total Integration Time (τ_{obs}) [s] | 300 |
| CALCULATED PARAMETERS | |
| SEFD [Jy] | 11 |
| Sensitivity [Jy] | 4.6 |
| EIRP [W] | 2×10^{13} |
| Sky Coverage [deg ²] | 33,885 |
| CWTFG | 2.27×10^{-3} |