

## The Simons Observatory: Galactic Science Goals and Forecasts. Author Supplement

THE SIMONS OBSERVATORY COLLABORATION

### 1. AUTHOR CONTRIBUTIONS

We include a list of (optional) sentences from coauthors documenting their contributions.

**Brandon S. Hensley** co-led the Galactic Science Analysis Working Group, coordinated overall analysis and writing efforts, contributed to the writing and analysis in Sections 1, 2, 3, 4.5, 4.6, and 5, and coordinated responses to internal and external reviewers.

**Susan E. Clark** co-led the Galactic Science Analysis Working Group, coordinated overall analysis and writing efforts, and contributed to the writing and analysis in Sections 1, 3.4, 4, and 5.

**Valentina Fanfani** led the power spectrum analysis of multi-frequency Galactic emission in Section 3, and contributed to the writing of Sections 2 and 3.

**Nicoletta Krachmalnicoff** set up the first version of codes and simulations to perform the power spectrum analysis of multi-frequency Galactic emission in Section 3 and contributed to the writing of Sections 2 and 3.

**Giulio Fabbian** performed the CO polarization forecasts at the map and power spectrum level of Section 4.5. He produced the SAT intensity noise model described in Section 2.1.2 and contributed to the writing of Sections 4.5 and 2.1.

**Davide Poletti** produced the post-component-separation properties of the CO (noise maps and power spectra) and contributed to the writing of Section 4.5.

**Giuseppe Puglisi** contributed to the analysis of the forecasts of CO and AME described in Sections 4.5 and 4.6, in the writing of the same, and reviewed Section 3.5.

**Gabriele Coppi** contributed to the analysis of Section 4.3 regarding molecular clouds and is also part of the team that designed the LATR.

**Jacob Nibauer** led the writing and analysis in Section 4.2 on Exo-Oort clouds and debris disks.

**Nicholas Galitzki** contributed to the writing and analysis of Sections 1, 2.1, and 3.3.

**Carlo Baccigalupi** helped in making the content and quotations complete in relation to earlier works dealing with CO and other foregrounds.

**Eric Baxter** contributed to writing and analysis in Section 4.2.

**Blakesley Burkhart** contributed to writing of Section 4.7 on applications to turbulence in the interstellar medium.

**Carlos Hervías-Caimapo** reviewed the final version of the paper, adding comments on several sections.

**Kevin M. Hufenberger** was a collaboration internal referee for this paper and wrote a portion of the introduction in an early draft.

**Baptiste Jost** helped in the final step of the internal review, adding comment in particular about component separation.

**Mayuri Sathyanarayana Rao** reviewed sections of this paper as member of the internal working group and provided technical comments and references in Sections 3.1.1 and 3.2 of the paper.

**Kevin Wolz** helped in the review of the final work, adding comments on several sections of the paper.