

Dark Energy Survey Year 3 results: w CDM cosmology from simulation-based inference with persistent homology on the sphere

J. Prat,^{1,2,3★}, M. Gatti,⁴ C. Doux,^{5,6} P. Pranav,⁷ C. Chang,^{3,4} N. Jeffrey,⁸ L. Whiteway,⁸ D. Anbajagane,⁴ S. Sugiyama,⁵ A. Thomsen,⁹ A. Alarcon,¹⁰ A. Amon,¹¹ K. Bechtol,¹² G. M. Bernstein,⁵ A. Campos,^{13,14} R. Chen,¹⁵ A. Choi,¹⁶ C. Davis,¹⁷ J. DeRose,¹⁸ S. Dodelson,^{3,19,4} K. Eckert,⁵ J. Elvin-Poole,²⁰ S. Everett,²¹ A. Ferté,²² D. Gruen,²³ E. M. Huff,²⁴ I. Harrison,²⁵ K. Herner,¹⁹ M. Jarvis,⁵ N. Kuropatkin,¹⁹ P.-F. Leget,¹⁷ N. MacCrann,²⁶ J. McCullough,^{11,17,22,23} J. Myles,¹¹ A. Navarro-Alsina,²⁷ S. Pandey,⁵ M. Raveri,²⁸ R. P. Rollins,²⁹ A. Roodman,^{22,17} C. Sánchez,⁵ L. F. Secco,⁴ E. Sheldon,³⁰ T. Shin,³¹ M. A. Troxel,¹⁵ I. Tutusaus,³² T. N. Varga,^{33,34,35} B. Yanny,¹⁹ B. Yin,¹³ Y. Zhang,³⁶ J. Zuntz,³⁷

(The DES Collaboration)

Author affiliations are listed at the end of the paper

2 June 2025

¹ This is a placeholder document.

★ E-mail: judit.prat@su.se