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ERRATUM

Implementation of a dark zone maintenance algorithm for speckle drift correction in a high contrast space coronagraph (Erratum)

Susan F. Redmond,[a,*] Leonid Pogorelyuk,[b] Laurent Pueyo,[c] Emiel Por,[c] James Noss,[c] Scott D. Will,[c,d] Iva Laginja,[e,f] Keira Brooks,[c] Matthew Maclay,[g] J. Fowler,[h] N. Jeremy Kasdin,[a] Marshall D. Perrin,[c] and Rémi Soummer[c]

[a]Princeton University, Princeton, New Jersey, United States
[b]Massachusetts Institute of Technology, Cambridge, Massachusetts, United States
[c]Space Telescope Science Institute, Baltimore, Maryland, United States
[d]University of Rochester, Rochester, New York, United States
[e]Université Paris Saclay, DOTA, ONERA, Châtillon, France
[f]Aix Marseille Université, CNRS, LAM (Laboratoire d'Astrophysique de Marseille) UMR 7326, Marseille, France
[g]Dartmouth College, Hanover, New Hampshire, United States
[h]University of California Santa Cruz, Santa Cruz, California, United States

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This article [*J. Astron. Telesc. Instrum. Syst.* 8(3), 035001 (2022) doi 10.1117/1.JATIS.8.3.035001] was originally published with errors in Figs. 4 and 5. An error when generating the plots caused the nanometer-to-picometer conversion to be 100 instead of 1000. This caused the x-axis in the plots to be off by a factor of 10. The correct figures appear below.

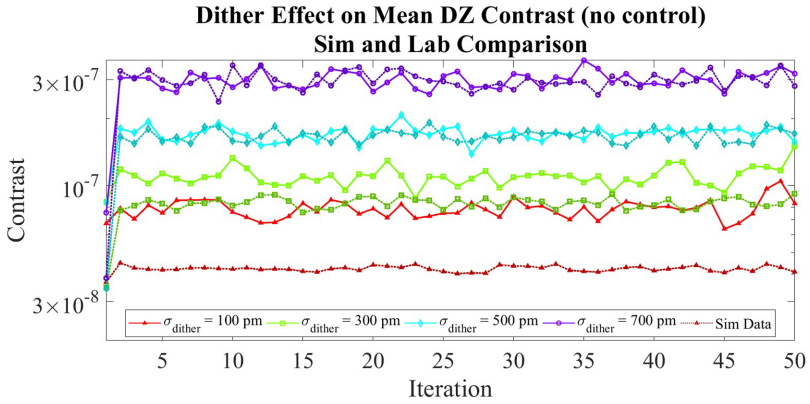

Fig. 4 Comparison of simulated and hardware data for the effect of varying DM dither standard deviations (σ_{dither} [pm]) on the mean contrast in the DZ. Solid lines are hardware data, and dashed lines are simulated data. For the red triangle hardware curve, the initial contrast was not sufficiently high to see the effect of the dither.

*Address all correspondence to Susan F. Redmond, sredmond@princeton.edu

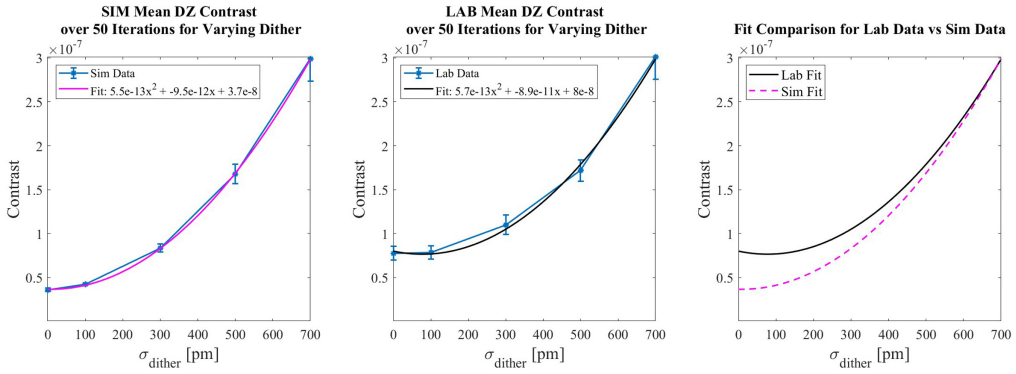

Fig. 5 Second-order model of the mean dark-zone contrast with respect to the dither for the HiCAT simulator and hardware. The second-order fit produces different equations for the lab and sim data due to the contrast floor on the testbed (right panel). Data points for the simulated and hardware experiments include error bars to show the standard deviation of the contrast in the DZ region over the 50 images; note that the error bars increase with dither magnitude, which is expected. At smaller dithers, the hardware does not reliably produce high enough contrasts to capture the behavior.

The article was corrected on 21 February 2024.