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The LEECH Exoplanet Imaging Survey. Further constraints on the planet architecture of the HR 8799 system^{*} (Corrigendum)

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Appendix A: Distortion correction

To measure the distortion effects of the LMIRCam camera, we used the IDL procedure `polywarp`, which performs polynomial fitting for a given order that includes higher-order terms. The higher-order coefficients were omitted in the published paper. We give all the distortion coefficients in Table A.1. We also provide the correct Eqs. (A.1) and (A.2). The distortion correction was applied using the IDL routine `poly_2d`.

$$\begin{aligned} x' = & a_0 + a_1(x - x_0) + a_3(x - x_0)^2 + a_6(x - x_0)^3 \\ & + a_2(y - y_0) + a_4(x - x_0)(y - y_0) + a_7(x - x_0)^2(y - y_0) \\ & + a_5(y - y_0)^2 + a_8(x - x_0)(y - y_0)^2 + a_9(y - y_0)^3 \\ & + a_{10}(x - x_0)^3(y - y_0) + a_{13}(x - x_0)^3(y - y_0)^2 \\ & + a_{12}(x - x_0)(y - y_0)^3 + a_{14}(x - x_0)^2(y - y_0)^3 \\ & + a_{11}(x - x_0)^2(y - y_0)^2 + a_{15}(x - x_0)^3(y - y_0)^3, \end{aligned} \quad (\text{A.1})$$

$$\begin{aligned} y' = & b_0 + b_1(x - x_0) + b_3(x - x_0)^2 + b_6(x - x_0)^3 \\ & + b_2(y - y_0) + b_4(x - x_0)(y - y_0) + b_7(x - x_0)^2(y - y_0) \\ & + b_5(y - y_0)^2 + b_8(x - x_0)(y - y_0)^2 + b_9(y - y_0)^3 \\ & + b_{10}(x - x_0)^3(y - y_0) + b_{13}(x - x_0)^3(y - y_0)^2 \\ & + b_{12}(x - x_0)(y - y_0)^3 + b_{14}(x - x_0)^2(y - y_0)^3 \\ & + b_{11}(x - x_0)^2(y - y_0)^2 + b_{15}(x - x_0)^3(y - y_0)^3. \end{aligned} \quad (\text{A.2})$$

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Table A.1. Coefficients of the distortion solution for the LMIRCam camera.

a_i	-2.148	1.011	5.814e-3	-2.116e-5	-2.383e-5	-7.640e-6	1.298e-8	5.312e-8	2.846e-8	2.536e-9
	-4.125e-11	-6.632e-11	-9.321e-12	5.164e-14	2.289e-14	-1.599e-17				
b_i	9.272	-1.362e-2	0.988	1.131e-5	-3.953e-5	4.351e-6	1.628e-9	6.713e-8	8.120e-8	9.345e-9
	-2.772e-11	-1.653e-10	-5.205e-11	8.212e-14	1.066e-13	-5.370e-17				