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NIKA 150 GHz polarization observations of the Crab nebula and its spectral energy distribution *(Corrigendum)*

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A computational error has been found in the formula used to convert polarization angle values from equatorial to Galactic coordinates as reported in Table 2 of our original article. This concerns only $\psi_{\rm gal}$ values in parenthesis, regarding the NIKA camera observations. An updated version of Table 2 is given in Table 1 with new values having been recomputed. The bottom panel of Fig. 6 of the original article has been updated accordingly (see Fig. 1). This correction, however, does not significantly affect the result of the weighted-average polarization angle, which is now equal to $-87.8°$ instead of $-87.7°$, which is consistent within the uncertainty previously given. It is important to notice that the uncertainties associated with the polarization angle values are not affected by the coordinate change correction.

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Table 1. NIKA Crab nebula total flux I, Q, and U are presented here and were estimated by using aperture photometry methods.

	I [Jy]	Q [Jy]	U [Jy]	$I_{\rm pol}$ [Jy]	p [%]	$\psi_{\rm eq}$ ($\psi_{\rm gal}$) [°]
5′	191.4 ± 26.8	2.97 ± 0.3	−16.0 ± 1.5	16.3 ± 1.7	8.5 ± 0.4	140.3 (−97.4) ± 0.1 ± 0.5 ± 1.8$^{(*)}$
7′	226.5 ± 25.0	3.5 ± 0.4	−14.9 ± 1.2	15.3 ± 1.8	6.7 ± 0.1	141.7 (−95.9) ± 0.2 ± 0.5 ± 1.8$^{(*)}$
9′	222.7 ± 24.6	3.5 ± 0.4	−14.3 ± 1.2	14.8 ± 1.6	6.6 ± 0.3	142.0 (−95.7) ± 0.7 ± 0.5 ± 1.8$^{(*)}$

Notes. A colour correction factor of 1.05 has been taken into account. Polarized intensity flux $I_{\rm pol}$, polarization degree p, and angles $\psi_{\rm eq}$ (equatorial coordinates) and $\psi_{\rm gal}$ (Galactic coordinates in brackets), are also presented. The values have been calculated within 5′, 7′, and 9′ by aperture photometry. A total calibration error of 10% has been accounted for. The statistical uncertainty also accounts for Monte Carlo simulations of the noise in Q and U and the differences between two sets of seven jack-knife maps. $^{(*)}$A systematic angle uncertainty of 1.8° must be considered in the polarization angle error budget. We also consider a 0.5° of uncertainty due to the intensity to polarization leakage correction.

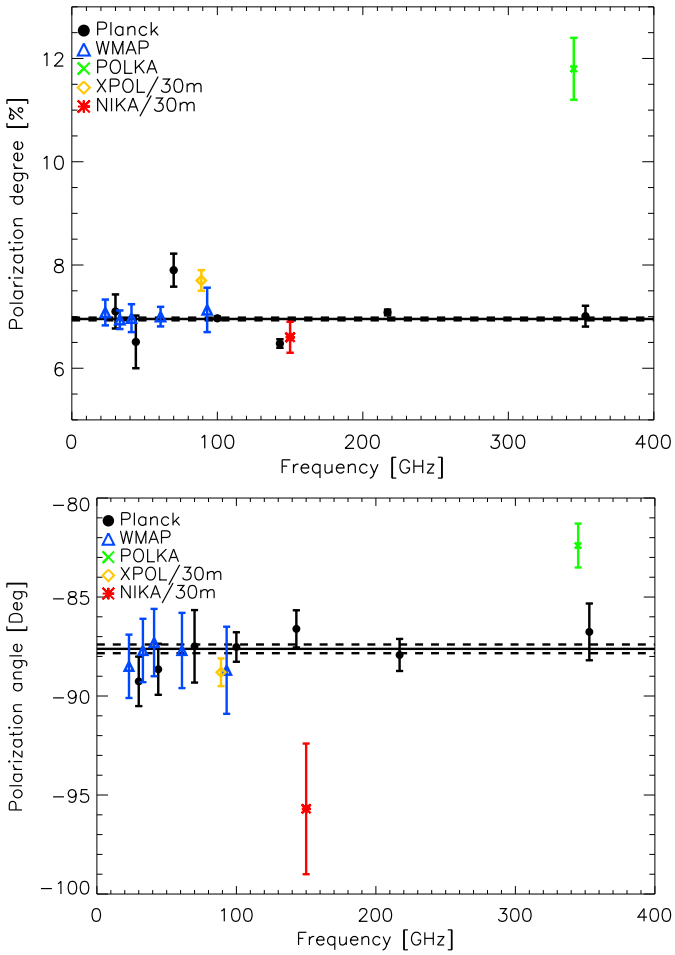

Fig. 1. *Top*: polarization degree as a function of frequency as measured by *Planck* (black dots), WMAP (blue triangles), XPOL (yellow diamond), POLKA (green cross), and NIKA (red crosses). The NIKA and POLKA values have been estimated by aperture photometry considering the source extension up to 9′. *Planck* and WMAP values are shown at their native resolution. XPOL, NIKA, and POLKA values have been integrated over the source. The solid line represents the weighted-average degree for all experiments but POLKA. Dashed lines represent 1σ uncertainties. *Bottom*: polarization angles in Galactic coordinates for the same five experiments. The solid line represents the weighted-average polarization angle computed using all the values.