



To Whom It May Concern

The issue

Scientists working on the polarization of the Cosmic Microwave Background (CMB) use a convention for the polarization angle (PA) which is opposite to the IAU approved standard. This may cause confusion and misunderstandings.

Background

The convention astronomers follow for the PA (Polarization Angle) goes back to the 19th century and it has been in use for observations going from radio to gamma rays: the PA increases counter-clockwise when looking at the source. This convention is consistent with the one used for the Position Angle and it has been enforced by the IAU with a Resolution by Commissions 25 and 40 at the IAU XVth General Assembly in Sydney in 1973 (see Transactions of the IAU, Vol. XVB, pg. 166).

Recently, the scientists investigating the polarization of the CMB (the CMB polarization has been discovered in 2002), have unfortunately adopted the opposite convention (PA increasing clockwise when looking at the source). This corresponds to a change of sign of the U Stokes parameter and is causing confusion and misunderstandings, in particular in the case of polarization data coming from experiments and satellites which are used by the CMB community and by other astronomers.

Recommendation

The IAU recommends that all astronomers, including those working on the CMB, follow the IAU Resolution for the Polarization Angle in all their publications.

Paris, December 8th, 2015

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