Astrophysics > Cosmology and Extragalactic Astrophysics

Last scattering, relic gravitons and the circular polarization of the CMB

Massimo Giovannini

(Submitted on 23 Jan 2010)

The tensor contribution to the \$V\$-mode polarization induced by a magnetized plasma at last scattering vanishes exactly. Conversely a polarized background of relic gravitons cannot general a \$V\$-mode polarization. The reported results suggest that, in the magnetized \$\Lambda\$CDM paradigm, the dominant source of circular dichroism stems from the large-scale fluctuations of the spatial curvature.

Comments: 8 pages, no figures

Subjects: Cosmology and Extragalactic Astrophysics (astro-ph.CO); General Relativity and Quantum Cosmology (gr-qc); High Energy Physics - Phenomenology (hep-ph); High Energy Physics - Theorem Physics - Theorem

(hep-th)

Report number: CERN-PH-TH/2010-012

Cite as: arXiv:1001.4172v1 [astro-ph.CO]

Submission history

From: Massimo Giovannini [view email] [v1] Sat, 23 Jan 2010 19:33:07 GMT (8kb)

Which authors of this paper are endorsers?

Link back to: arXiv, form interface, contact.