Contribution ID: **1053** Type: **Talk in the parallel session**

Magnetic field in Neutron stars, vacuum birrefrigence consequences

Monday, July 5, 2021 7:00 PM (15 minutes)

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Vacuum in presence of magnetic field exhibits birrefrigence. We have obtained this effect from linear correction of dispersion relation of photon travelling perpendicular to the magnetic field valid even for magnetic fields close to B_c=10¹³ G.
Although this phenomenon has not been yet detected evidenceof this effect has been reported for neutron star RX J1856.5−3764 by Mignani et al.. In the light of this finding we analyze our results.
In this context we discussed possible experiments in lab with pulsanting laser beams.

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(lowast;) This research has been supported by Junta de Castilla y León SA096P20 and Spanish Ministry of Science PID2019-107778GB-100 projects.
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Session Classification: Compact Stars as Laboratories for Testing Strong Gravity

Track Classification: Neutron Stars: Compact stars as laboratories for testing strong gravity