

Abstract Submitted  
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**Research paper on "dye doped nematic liquids used in detecting gravitational wave in less sophisticated method"** LASIN ABDURAHIMAN, MUHAMMAD SAJEER P, None — In the present work, non linear properties of liquid crystal is applied to detect and study Gravitational waves in LIGO, even with the use of much sophisticated devices like Seismic isolator and Vacuum tubes, complete vacuum could not be attained. We hereby propose an alternative method using Dye doped Nematic liquid crystals to produce electro magnetic soliton which maintains its amplitude and energy without any loss. When Gravitational waves are passing through the crystals, there would be small change in the orientation of the crystal causing chaotic changes in the refractive index these changes indicate the presence of Gravitational waves.

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None

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