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Gravitational Dispersion in a Torsional Wave Machine RAFAEL

DE LA MADRID, Lamar University — We demonstrate that mechanical waves traveling in a torsional, mechanical wave machine exhibit dispersion due to gravity and the discreteness of the medium. We also show that although the dispersion due to discreteness is negligible, the dispersion due to gravity can be easily measured, and can be shown to disappear in a zero-gravity environment. These results have been obtained in collaboration with Mr. Alejandro Gonzalez and Dr. George Irwin, and they have been included in a paper published by the American Journal of Physics [Am. J. Phys. 82, 1134 (2014)]

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