ASTrophysics

Space ripples could pump up stars

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Gravitational waves could energize and brighten stars — possibly providing indirect evidence for the weak ripples in space time that are thought to be emitted by high-energy events such as exploding stars.

Barry McKernan at the City University of New York and his colleagues calculated the effect that gravitational waves would have on a star if the waves have frequencies matching those of the star's natural vibrations. They found that the star absorbs those waves, and if close to a powerful source such as merging black holes, it could heat up and brighten.

The study suggests that gravitational waves, which are difficult to detect, could interact more strongly with matter than previously thought.