How can Einstein's curved space apply to earthquakes?

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Abstract

Einstein believed that space is curved, but the influence of solar and lunar gravitational pulls on seismic activities is different at different times of the day or of the month. Accelerations and decelerations of a large or a small mass on the Earth can appear at different times.

Seismic activity resembles weightlifting and is driven by solar and lunar gravitational pulls (1-3). In Einstein's view, space is curved. How to apply this to earthquakes remains an issue. At 0:00-12:00 am local time, solar pull accelerates earth-crust in the direction of the Earth's self-rotation, but at 12:00-0:00 pm local time, solar pull decelerates earth-crust opposite to the direction of the Earth's self-rotation. (1-3) This principle may account for different earthquake frequencies in different time of the day or of the month (4). The slower deceleration of a large mass or faster acceleration of a small mass creates strain on the earth-crust, similar to fast-traveling trains and cars on the same road with start or stops resulting in crashes (1-3).

References

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