

Answer on Question#38396 – Physics – Other

How energy is transferred in transverse wave?

Solution:

Transverse waves only go through materials where the particles are closely connected in some way. So they are stopped by most fluids. For instance vibrations in a string can only be transmitted along if the string isn't broken. But longitudinal (i.e pressure) waves can just make pressure differences in liquids or gasses that allow them to go through any material dense enough. So the waves in the string are transverse, but the sound waves produced in the air around it are only longitudinal.

A transverse wave is a moving wave that consists of oscillations occurring perpendicular (or right angled) to the direction of energy transfer. Energy is transferred in transverse wave due to vibration which makes the particle to move in perpendicular to the motion of the energy.