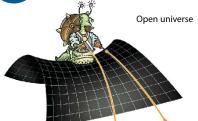
## Should this laser slinging slug have fired his weapon?

It depends...





## It depends on the kind of universe he lives in...



The amount of dark matter and energy in the universe plays a crucial role in determining the shape of space. If the density of matter and energy in the universe is less than the critical density, then space is open and negatively curved like the surface of a saddle. If the density exactly equals the critical density, then space is greater than critical density, then space is flat like a sheet of paper. If the density is greater than critical density, then space is closed and positively curved like the surface of a sphere. In this latter case, light paths diverge and eventually converge back to a point. The Inflationary Theory, an extension of the Big Bang theory, predicts that density is very close to the critical density, producing a flat universe, like a sheet of paper. For more information on the shape of our universe and the MAP mission go to: http://map.gsfc.nasa.gov

NP-2002-6-467-GSFC (4 of 4)

Closed universe

Flat universe

Fictowave Anisotropy Probe (MAR)