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Scientists Propose Using Quasars to Test Bell's Theorem

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Posted by [noisegen](#)

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Bell's Theorem is a set of conclusions that, if violated by experiments, would imply that the universe follows quantum mechanical rules as opposed to the rules of classical physics. There was fierce debate in the 1930s between supporters of quantum mechanics such as Neils Bohr and Erwin Schrodinger, and of those of classical relativity such as Albert Einstein. The [Einstein Podolsky Rosen paradox](#) (EPR) was an attempt to show that the QM explanation of the universe was incomplete. In 1965, physicist John Stewart Bell waded into the debate and came up with a set of conclusions that would prove QM to be correct or not. All lab tests so far have found Bell's theorem to support the QM interpretation, but issues still remain, mainly the problem of [locality](#) - the possibility that distant events could effect each other by communicating faster than light, thereby violating relativity (but not quantum mechanics). [A new test Bell's theorem has been proposed](#), this one using the the light of extremely distant quasars to offer further evidence in favor of the quantum interpretation of the universe.

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