

Venerdì 1° Luglio Aula Magna, ore 14:30

## Seth Lloyd (Massachusetts Institute of Technology Cambridge,USA)

## Sending a photon backward in time

Ever since Einstein, physicists have argued about whether time travel is consistent with the laws of physics, and, if so, how it might be accomplished. This talk presents a new theory of time travel based on quantum teleportation. Unlike previous theories, the theory can be tested experimentally. I report on an experimental realization of the `grandfather paradox': we send a photon a few billionths of a second backwards in time and have it try to `kill' its previous self.