

26 August 2009

By: Tudor Vieru, Science Editor



Kaku was one of the founders of string theory  
Orion.med

## **Future Technologies Are Closer than We Think**

*The opinion belongs to renowned physicist Dr. Michio Kaku*

Many people believe that things such as teleportation, invisibility cloaks and time travel pertain only to science-fiction movies and books, but renowned theoretical physicist Dr. Michio Kaku believes that they may be a lot closer than we think. The expert, who collaborated in creating the string theory, reveals that all these concepts, which have been widely circulated in literature and in Hollywood, are in fact in agreement with the modern laws of physics, and therefore possible, the [BBC News](#) reports.

In "Physics of the Impossible," his most recent book, the scientist says that the only thing standing between humankind and these seemingly impossible devices is time. That is to say, there are no clear technological obstacles that stand between us and time travel, for instance. His claims seem to be supported by the fact that experts working on developing invisibility cloaks have already made considerable progress, while investigators in charge of teleportation research have already managed to apply the process on photons, over a distance of 600 meters.

Kaku draws attention to the fact that, at one point, physics manuals taught students that camouflaging something to the point of invisibility was impossible, due to the behavior of photons. Now, thanks to advancements in materials science, it is possible to construct devices that essentially redirect light around them, which for all intents and purposes means that the object is invisible. As for teleportation, it has already become a fairly widespread practice at the atomic level. Admittedly, it would be some time before we ask Scotty to beam us up from home to work.

However, the physicist says that robotics is a field less likely to receive breakthroughs in the following years. Or, as he puts it, "Stupid cockroaches are smarter than our robots. Robots are nothing but tape-records, pre-scripted moves ahead of time. Digital computers have a hard time learning and that's the fundamental problem. They don't learn new skills." It remains to be seen precisely which of the proposed SF ideas becomes reality first, although all clues would seem to point at the invisibility cloaks, for which the materials and the know-how already exist.