



"The rebel physicist". The New York Times dedicates a feature article to the Italian physicist Angelo Bassi

On 25th June 2020 the New York Times published a feature article, written by Bob Henderson, which is professional and personal portrait of Angelo Bassi, professor of Physics at the University of Trieste, as well as leading scientist in the foundations of Quantum Mechanics.

Coming from the renown Trieste school in theoretical physics founded by late Professor GianCarlo Ghirardi, Angelo Bassi has given new drive to the research on the foundations of quantum physics and is currently leading an ambitious international project called *TEQ: Testing the Large Scale of Quantum Mechanics*, having as objective to verify the limits of validity of quantum theory.

The results achieved so far by Professor Bassi have already appeared in various scientific journals in the sector, including the prestigious journals *Science* and, for dissemination, *Scientific American*. The article now published in the New York Times Magazine is further recognition of the scientific importance of this research. "Even if the world is ultimately not understandable, there is no reason to believe we have hit the bottom with quantum mechanics", says Professor Bassi in the article who, on the strength of this belief, dedicated the last fifteen years of his research to study models and propose new ideas to verify how quantum mechanics can be falsified.

The article explains how quantum mechanics allows microscopic objects to be simultaneously in two different states that "collapse" in one of the two only when the system is observed. As summarized in the famous and provocative paradox proposed by Schrödinger, the theory predicts that the same thing can happen to a cat locked in a box, which could be alive and dead at the same time, until the moment someone opens the box and "collapses" its state. Professor Bassi's research is focused on alternative models, known as *spontaneous wave function collapse models*, whereby microscopic systems can live in multiple states at the same time, while macroscopic objects are always in well-defined states, contrary to what is foreseen by quantum theory.

If Professor Bassi was right, explains Bob Henderson in the article, and quantum mechanics were ultimately wrong, the implications for physics, technology and even philosophy would be immense.

Full article at the link:

<https://www-nytimes-com.cdn.ampproject.org/c/s/www.nytimes.com/2020/06/25/magazine/angelo-bassi-quantum-mechanic.amp.html>
