



ICFO in Space-Quest

ICFO joins the Topical Team Space-Quest.

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The Quantum Information with Photons group, led by Prof. Juan P. Torres, has joined the Topical Team Space-Quest (**Quantum Experiments in Space ExperimentTs**) of the European Space Agency (ESA). The Topical Team, coordinated by Dr. Rupert Ursin, from the Institute for Quantum Optics and Quantum Information (IQOQI), Austrian Academy of Science, Vienna, is formed by renowned scientists in the field of quantum optics and Quantum Information from Austria, Germany, Italy, France, Switzerland, and The United Kingdom.

Quantum Physics is thought to be a strange and incomprehensible theory for ordinary mortals, but nevertheless, most of its predictions have been stubbornly confirmed in hundreds of experiments. The majority of these experiments are performed in laboratories all around the world. At the same time, researchers are making great efforts to make new experiments in the real world, this means in the streets of cities, in less populated areas and,

why not, in space.

Space can represent an opportunity for quantum-related physics, since it is a scenario where large distances, large velocities, global access and real free-space propagation, none of them available on earth experiments, are involved. On the other hand, it is a highly hostile environment that requires a really hard push on the technological side.

The European Space Agency (ESA) is encouraging and actively supporting the teaming-up of European scientists, who all share a common interest in performing experiments using infrastructure in a space environment including the International Space Station or ground facilities.

The Topical Team Space-QUEST experiment comprises researchers from academia and industry who are already actively involved in space experiments, as well as partners who are presently not yet involved in space research. The objective is to support the Space-QUEST proposal within ESA and its member states. The members of the Topical Team support the project with their individual scientific and technical know-how. The topical team of the Space-QUEST project aims at increasing the research community's interaction with industry.