

Quantum science and technologies: the Trentino-based research organizations team up for the European call

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The University, FBK and CNR invite local institutions to participate along with the flagship launched by the European Commission for 2018. Objective: to set the stage for the second quantum revolution through an alliance between academia and industry will that promote European leadership in this area. Friday at 5:30 pm in Povo the launch of the Q @ TN Project. Quantum science and technologies: the opportunities for development in a talk by Tommaso Calarco

From microprocessors to the solid-state memories that we find in mobile phones and computers, to the lasers used for internet connections in optical fiber until LEDs in our screens: understanding how light and matter behave at a fundamental level has led to these and many other useful applications in our daily lives. They are the result of the first quantum revolution: the understanding of how nature works. If the quantum theory was one of the most important scientific advances of the twentieth century, today we are at the dawn of a new revolution where the ultimate principles of this theory are used to produce devices and innovative applications. In fact, the industrialization of new quantum technologies has a huge potential. It is estimated that already in a few years, in 2020, secure quantum communication could serve a market of over one billion euros with a growth rate of 20% per annum. The improvements in satellite navigation resulting from the application of quantum metrology may also contribute to the GPS systems market with a turnover estimated at around 20 billion euros. And these are but two examples. This potential has been recognized by the European Commission that will launch in 2018 a Flagship initiative funded with a billion Euros over ten years, in order to keep the quantum industry world leadership in Europe. In the game of quantum science and technology, the Trentino area is strategically positioned to play an important role at a national level. And the foundations have already been set, The University of Trento, Fondazione Bruno Kessler and CNR (National Research Council) wish to network in this challenge and to rally businesses and other institutions in the Trentino area in order to create a common effort for the implementation of training actions and initiatives, research and technology transfer. The Q @ TN – Quantum Science and Technology in Trento Project will be officially presented next Friday, February 10 at 5:30 pm at the “Fabio Ferrari” Scientific and Technological Hub (Conference

Hall, Povo 2 Building, via Sommarive 9, Povo). During the presentation, Tommaso Calarco, professor at the University of Ulm (Germany) and member of the steering committee of FET Flagship on Quantum Technologies, will give a talk. Other speakers include Gianluigi Casse, director of Fondazione Bruno Kessler's Center for Materials and Microsystems and Lorenzo Pavesi, Head of the Department of Physics at the University of Trento, who will present the project's lines of action.

Information: <http://www.unitn.it/evento/project-QTN>

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