

April 12, 2019

NICT (National Institute of Information and Communications Technology) is actively promoting research on quantum ICT related fields, Now We have a great opportunity to listen to a lecture by Professor Michel Devoret, Department of Applied Physics, Yale University, a pioneer in the field of quantum information research using superconducting quantum circuits, and still a world leader in the field. We would like to invite people in related fields to attend a lecture. If you would like to participate, please apply for in advance as follows. The entry fee is free. The lectures and questions will be given in English, and there will be no simultaneous translation.

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Lecture Announcement

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Date & Time: 8 May 2019 (Wednesday) 13:30  
It will be finished in about 1 hour

Place: National Institute of Information and Communications Technology  
(NICT) <https://www.nict.go.jp/en/about/hq.html>

Speaker: Michel Devoret, F.W. Beinecke Professor of Applied Physics,  
Yale University (USA)

Title: Revealing the underlying physics of information: superconducting quantum circuits

Abstract: It is often said that our present world is organized into an "information society". But what exactly is meant by information? A sequence of symbols 0 and 1? Currently, even in the most miniaturized computer, a binary digit, commonly called a bit, is a complex physical device with billions of interacting particles. What happens to information processing when each bit is carried by a single particle, such as an atom, an electron or a photon? Conversely, can we see the movement of elementary particles as a calculation that the universe would perform? The physics of the last twenty-five years has been particularly fruitful in the development of ideas and experiments that have illustrated the vital role of information in physical laws, and have given rise to a new type of computer, still in the prototype phase, the quantum computer. This lecture, which is aimed at non-specialists, will expose some of the issues raised by the new quantum machines, especially those, promising, based on superconducting circuits, including their crucial error-correction capabilities.

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How to apply for the special lecture

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Please send the e-mail to [mqp\\_lect\\_r1@ml.nict.go.jp](mailto:mqp_lect_r1@ml.nict.go.jp), titled "entry for the Lecture by Professor Michel Devoret" by noon on April 26th (Fri.). Please note that the maximum number of participants is limited, so apply soon. The e-mail should include your name, title, affiliation, e-mail address.

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The lecture Secreariat  
Person in Charge: Hoshi, Sumiyoshi (NICT) [mqp\\_lect\\_r1@ml.nict.go.jp](mailto:mqp_lect_r1@ml.nict.go.jp)