Institute of SCIENCE TOKYO

大学院集中講義（物理学系物理学コース）

科目コード：PHY.T532, PHY.T632　単位：1-0-0

物理学特別講義（発展）第三

(Advanced) Special Lectures in Physics Ⅲ

「Quantum resource theory and its applications to the quantum gravity」

Lecturer　Hiroyasu Tajima

The University of Electro-Communications

Dates,

November 19(Tue) 13:30-15:10, 15:25-17:05

November 21(Thu) 13:30-15:10, 15:25-17:05,

November 22(Fri) 13:30-15:10 , 15:25-17:05, 17:15-18:55 (seminar)

Place

Main Bldg. M-107

＜Abstract＞

In recent years, the resource theory, which considers the quantum properties of physical states as resources, has been actively studied in the quantum information theory. Its applications are diverse, and quantum gravity theory is no longer an exception. In this lecture, the speaker will explain the basics of the quantum information theory and the resource theory, focusing particularly on three branches of the resource theory closely related to physics: entanglement, quantum thermodynamics, and asymmetry. The examples of applications to the quantum gravity will also be introduced.

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