

大学院集中講義(物理学系物理学コース)

科目コード: PHY.P585, PHY.P685 単位: 1-0-0

物理学特別講義(発展)第四十五 (Advanced) Special Lectures in Physics XXXXV

"Defects in supersymmetric field theories"

講師 丸吉 一暢 氏(Prof. Kazunobu Maruyoshi) 成蹊大学 准教授(Seikei University)

日程(Dates), 場所(Place)

10/24 (月)Oct. 24 (Mon)10:45-12:25, 13:45-15:25, 15:40-17:20 (zoom)

10/28 (金)Oct. 28 (Fri) 10:45-12:25, 13:45-15:25, 15:40-17:20 (zoom)

10/31 (月)Oct. 31 (Mon)10:45-12:25, 13:45-14:45 (セミナー) (zoom)

zoomは以下で事前登録してください。

https://zoom.us/meeting/register/tJ0ldO2ppzsjGN0z95h7xNXyQ3xew2k0B3wh



<講義概要, Abstract>

Supersymmetry is one of the important notion in particle physics. It appears in many areas not only in particle physics but also theoretical physics and mathematical physics. In this lecture, we focus on the quantum properties of supersymmetric field theory, which are reachable exactly via supersymmetry, and discuss defects which are objects to clarify the properties. After outlining the basics of quantum field theory and supersymmetry, we understand the low energy behavior of four-dimensional supersymmetric gauge theory. In the latter half, we discuss the supersymmetric defects and its relation with mathematical physics, especially integrable system. By these, we aim for an exact understanding of the quantum field theory.

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