

Okayama University
Faculty of Science

Research Institute for Interdisciplinary Science
Prof. Harald Jeschke
Asst. Prof. Nayuta Takemori



Okayama, November 13, 2018

Exercises for Advanced Physics 2, 2018 term 3

Exercise Set 5

(Due date: Tuesday, November 20, 2018)

Exercise 8 (Magnetism takes us beyond classical, nonrelativistic physics)
(10 points)

- (a) Explain in your own words why relativistic effects are important in magnetism, and describe these effects (about 100 words).
- (b) Explain in your own words why there is no magnetism without quantum mechanics (about 100 words).