

Modern Physics: Homework 15 (Extra Credit)

Due: 20 May 2021

This assignment will count for extra credit only. A maximum of 20 points is possible and the points scored will be added to the homework assignment total (the total number of points for all other homework assignments will be roughly 530 and 550).

1 Heisenberg and the German uranium project

- a) What choices were available to Heisenberg regarding his involvement in the German atomic weapons project? Was Heisenberg able to avoid having to make an extremely difficult choice? If so, how?
- b) Does it appear that Heisenberg deceived or attempted to deceive German authorities about the feasibility of a German nuclear weapon? What evidence supports your answer?
- c) Aside from personal considerations about making a nuclear weapon for Germany during World War II, what other motivations did Heisenberg have for continuing to work on the German uranium project?
- d) Heisenberg wanted to discuss the German weapons project with Niels Bohr, who was his friend. What compromises did he have to make to arrange the meeting? How did Bohr perceive those compromises?