

TQM Lectures 2025

These are the materials for Theories of Quantum Matter, a Part III Physics course at the University of Cambridge taught in Michaelmas 2025. The materials for previous versions of the course can be found [here](#). **Note that the material contained in the Appendices is non-examinable.**

The source of these notes is this [GitHub repo](#). If you find a typo, other problem or have any other comment on the material, please raise an issue there.

The discussions section is a good place to ask each other questions. Try it!

If you ever want access to the for the mathematical expressions, right click and select **Show Math As > TeX Commands**.

Check

These “Check” boxes provide small exercises to check your understanding as you read the notes. Make sure you do them!

Note

“Note” boxes provide extra context that you may find interesting but aren’t essential. Except this one. This one’s important.

Finally...

Warning

In this course $\hbar = 1$!

Lectures

Take place in the Small Lecture Theatre at the Cavendish Laboratory from 10.15-11.45 on Tuesdays and Thursdays.

Supervisions

There will be four supervisions, taking place in the weeks commencing 21/10, 4/11, 18/11, and 2/12.