

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!

ℹ 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.