

Preliminary schedule of:

Quantum Thermodynamics course (BSc)

Spring 2023

Preliminaries	1st lecture (09.01.)	Chapters 1 - 3
	2nd lecture (11.01.)	Chapters 3 & 4
Classical thermodynamics	3rd lecture (16.01.)	Chapters 10 & 11
	4th lecture (18.01.)	Chapters 12 & 13
	5th lecture (23.01.)	Chapters 14 & 15
	6th lecture (25.01.)	Chapters 16 & 18
Statistical mechanics	7th lecture (30.01.)	Chapters 19 & 20 & important parts of 22
	8th lecture (01.02.)	
Quantum thermodynamics	9th lecture (06.02.)	Chapter 29 Quantum statistics and electron transport
	10th lecture (08.02.)	Open quantum systems I, LC circuits and qubit
	11th lecture (13.02.)	Density matrix and master equation
	12th lecture (15.02.)	Applications: thermometers, detectors, heat engines and refrigerators

- **NOTE: Chapters refer to Stephen J. Blundell and Katherine M. Blundell, "Concepts in thermal physics", 2nd edition (2019).**