Sofie Marie Koksbang
Department of Physics, Chemistry and Pharmacy
Physics
Email: koksbang@cp3.sdu.dk
Phone: +4561683546

Teaching portfolio

Educational training

2024	PhD supervision course
2023	Questioning course (0.5 ECTS)
2023	Supervision course - roles and relations (0.5 ECTS, part of lecture training)
2022-2023	Lecture training (10 ECTS)
2022	Interactive teaching (0.5 ECTS, part of lecture training)
2022	Poll everywhere (0.5 ECTS, part of lecture training)

Experience with teaching, supervision and examination

Teaching

Since 2024	Course responsible for half (5ECTS) of FT504: Electromagnetism and optics
Since 2023	Course responsible for FY556/half (5ECTS) of FY546: advanced mechanics
Since 2022	Developer and course responsible for FY555 (5 ECTS): Introduction to python, machine learning and data handling for the physical sciences
2022	Teacher of part of the summer course FY553: The dark universe and (neural) networks
2020	Teacher for part of the course FY535: Astrophysics and fundamental cosmology

Supervision

2024-2025	Supervisor, 60 ECTS master's thesis project
2024	Supervisor of PhD student for machine learning project
2024	Supervisor of research project conducted by visiting researcher
2024	Supervisor of 15 ECTS individual study project "Cosmological Tardis models: Bigger on the inside"
2024	Supervisor of bachelor's project "Cosmic Backreaction", 15 ECTS
2023-2026	Supervisor of 2 PhD students
2022	Supervisor of bachelor's project "cosmic backreaction", 15 ECTS
2022	Supervisor of 9 ECTS first year project on Newtonian N-body simulations
2020	Supervisor of 2 groups of 4 students each in predefined course project (2.5 ECTS)

Censor

Since 2023	Internal censor of quantum physics (FY803) take-home exam
Since 2022	Internal censor at oral exams in 3rd year course Particle Physics (FY545)
2022	Censor for oral defense of first year project "Dark matter"
2021	Censor at oral defense of project reports for 2 groups in FT503: Experimental design and modelling

Reflections on teaching

I have never been able to concentrate about listening to a lecture so I was not too surprised to learn that research shows that in fact most people will stop taking in information about 8-20 minutes into a lecture. This means that traditional lectures are not optimal for learning for most students and I therefore strive towards breaking lectures into smaller sessions of about 10 minutes of lecturing separated by theoretical exercises and anonymous polls based on the topic of the "lecture". When preparing for lectures, I aim at identifying the most essential points from the curriculum and at finding the best ways of communicating these essential points in the clearest possible fashion. I also try to have poll questions demonstrate not only the use of the theory but also demonstrate e.g. obvious pitfalls or surprising results that could otherwise have led to confusion.