Teaching Portfolio (GB-ENG)

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Educational Training

Currently enrolled at SDU Lecturers Training Program (LTP) / Universitetspædagogikum (UP) since 2024.
I expect to finalize the LTP/UP course by summer 2026.

Lecturers Training Program (10 ECTS). 2024 - 2026.
Flipped learning (0.5 ECTS, part of LTP). 2024 - 2026.
Poll everywhere (0.5 ECTS, part of LTP). 2024 - 2026.
Assessment basics (0.5 ECTS, part of LTP). 2024 - 2026.
Produce learning videos (0.5 ECTS, part of LTP). 2024 - 2026.

Fysiske Undervisningsforsøg kompetencekursus I (5 ECTS), University of Copenhagen. 2004.
Fysiske Undervisningsforsøg kompetencekursus II (5 ECTS), University of Copenhagen. 2004.

To provide the student with knowledge of a wide range of experimental apparatus and experiments used in physics teaching in high school and in courses at a similar level, as well as knowledge of demonstration experiments in higher education. Furthermore, to enable the student to select, set up and carry out a series of experiments to illustrate a given topic or area of physics, and to provide a written and oral review of the whole. The student must be able to make relevant considerations about laboratory safety at all stages.

Teaching Philosophy

My overall teaching philosophy is to teach and work in a stress-less work environment. Once the teacher is balanced the students will be balanced. I am excellent in 1:1 or smaller group work interactions and less excellent in class-room teaching due to lack of experience. Huge progress is made in recent years thanks to being open, exercising transparency and being honest.

A key ingredient to transferring knowledge is the teacher-student relationship. Once there exist trust the learning of new material is met with fewer obstacles. I try to motivate students. I try to interact. I am listening to students. I am very good at revising teaching practice based on feedback given and I am more than happy to listen to criticism from student and take feedback / evaluation as an opportunity to exercise a reality check. My teaching will be grounded in the real world.

I am not a theoretician. I am a practitioner (experimental (astro)physicist) and I love classic physics experiments. Throwing chalk on the blackboard is important but working with actual experimental apparatus and measure stuff is equally important to to lend experimental evidence for a theoretical claim.

I gather empirical evidence and apply data analysis techniques to arrive at robust conclusions. The same principles I try to convey to students: stick to the information that the experiment or measurement procedure is conveying to you, do not interpret during data acquisition. Observe and take notes. Document each step. Apply adequate models to the data and then interpret. Be critical at all stages during the experiment and draw conclusions based on evidence.

During class I am also honest if I cannot readily provide an answer. In that case I will offer to follow up and seek an answer to be conveyed during next class.

As a supervisor I am a motivator and mentor and I let the student speak freely to express their mind without judgement. The same applies to situations in the class-room. In my world there exist no stupid questions since physics, mathematics, astrophysics, data science, statistics and computer science are all difficult subjects to grasp and to navigate around within.

I am not a natural gifted educator, but I do have communication qualities that are well-liked among students.

Teaching experience at SDU (2022 - today)

Co-teaching: FT506 (1st year project). 10 ECTS. Undergraduate. S2024.
Co-teaching: FY535/FY836 (Introduction to Cosmology & Astrophysics). 5 ECTS. Graduate. F2024, F2025.

From F2026 I will be responsible for teaching and examining FY535/FY836 (Introduction to Cosmology & Astrophysics). 5 ECTS. Undergraduate/Graduate course.

Co-teaching: FY829 (Research activities in experimental physics). 5 ECTS. Graduate. F2024, F2025.
Co-teaching: FY537 (Fundamental Astronomy). 10 ECTS. Undergraduate. S2024. S2025.
Co-teaching: FY826 (Observational Astronomy). 5 ECTS. Graduate. S2024.

Co-teaching: Responsible Conduct of Research (RCR). Module 4. Authorship, Publication, Citations and Peer review. Offered by SDUB and mandatory part for SDU PhD students. 2 ECTS. F2022/S2023. Part of me hired as a Research Librarian.

Co-teaching : Responsible Conduct of Research (RCR). Module 3. Research Data Management. Offered by SDUB and mandatory part for SDU PhD students. 2 ECTS. F2022/S2023. Part of me hired as a Research Librarian.

I have experience in written, oral and project evaluation examinations.

I have been an internal censor for S2025 "1st year project".

I have experience in co-chairing external / international MSc thesis projects.

Supervision experience - SDU Individual Study Activity (ISA) Projects

2025/2026	Josefine E. Melchior & Nicklas J. Jensen. Title: "Chirality as a Biosignature: Linking Early Molecular Evolution to Mars Exploration". (10 ECTS).
2024/2025	Kristoffer K. H. P. Petersen. Title: "Detection and analysis of exoplanets using AstroImage". (5 ECTS).
2024/2025	Louise S. Kristensen. Title: "Analyzation and detection of Exoplanets". (5 ECTS).
2024/2025	Iman M. Taglass. Title: "Ultraviolet catastrophe". (5 ECTS).
2024/2025	Frederik H. D. Christensen. Title: "Inference of Dark Matter from Observations of the Coma Cluster". (10 ECTS). Comment: This work was presented at ADAM 2025.
2024/2025	Frederik F. Kristiansen. Title: "From Paris to Copenhagen: astronomer Ole Rømer and his quest for the speed of light". (3 ECTS).
2024/2025	Ioannis Zeris. Title: "Exploring Spectroscopy Through the SolEx". (10 ECTS).
2024/2025	Johanne H. Pedersen. Title: "The modern Eddington Experiment". (10 ECTS). Comment: This work was presented at ADAM 2025.
2024/2025	Pia E. Blaufuss. Title: "Earth's Climate in Time: Milankovitch Cycles and the Role of the Moon on Earth's Axial Tilt via Numerical Orbit Integrations". (10 ECTS). Comment: This work was presented at ADAM 2025.
2024/2025	P. E. Blaufuss & J. H. Pedersen. Title: "Exoplanets". (5 ECTS).
2024/2025	Isabella A. Koch. Title: "Photometric Analysis of a Transiting Extrasolar Planet". (5 ECTS).

Supervision experience - SDU/BSc Projects

2025	Iman M. Taglass. Thesis title: "Analyzing Spectral Energy Distributions for Stellar Classification Using Astronomical Filters". Supervisors: T. C. Hinse.
2025	Kristoffer K. H. Platz Petersen. Thesis title: "Simulating Microlensing Events - Exploring the Impact of Planetary and Stellar Parameters". Supervisors: T. C. Hinse.
2025	Louise S. Kristensen. Thesis title: "Photometric and Spectroscopic Data Analysis of a Transiting Extrasolar Planet". Supervisors: T. C. Hinse.
2025	Anton D. Dueholm. Thesis title: "Photometric and Spectroscopic Data Analysis of a Transiting Extrasolar Planet". Supervisors: T. C. Hinse.
2025	Isabella A. Koch. Thesis title: "Simulating Exoplanet Transits: Hands-on Experimentation and Data Analysis". Supervisors: T. C. Hinse.
2024	Julie M. Knudsen. Thesis title: "Classification of galaxies". Co-supervisor: T. C. Hinse.

Supervision experience - SDU/MSc Projects

2025/2026	Pia E. Blaufuss. Thesis (working) title: "Exploring Compact Object Mergers with Numerical Relativity Codes". Formal supervisor. Scientific supervisor: Roman Gold (Heidelberg).

Supervision experience - SDU/PhD Projects

Currently, I have no experience in supervising SDU PhD students.

Supervision experience - International BSc projects

Currently, no experience.

Supervision experience - International MSc projects

2024-2025	Vincente Moldonado. Universidad de Chile (Santiago, Chile). Thesis title: "Dynamical properties of transiting extrasolar planets and TTV signals". Supervisor: P. Rojo, T. C. Hinse. Comment: This work likely will result in a peer-reviewed publication.
2018-2019	Mahesh Herath. University of Colombo (Sri Lanka). Thesis title: "Transiting extrasolar planets". Supervisor: T. C. Hinse. Comment: this work resulted in a peer-reviewed publication.
2015-2016	Beom-Kuy Choi. Kyung-buk National University (S. Korea). Thesis title: "Gravitational Simulation Study for the Extrasolar system: EPIC 201367065 (K2-3)". Supervisor: T. C. Hinse. Formal supervisor: Prof. Tae-Seok Yoon. Comment: This work resulted in a conference contribution.
2014-2015	Ekrem Esmer. Ankara University (Turkiye). Thesis title: "Exoplanet discov ery in Multi-Stellar Systems with the Timing Technique". Supervisors: O. Basturk, T. C. Hinse, S. O. Selam.
2011-2012	Sanne Hardis. University of Copenhagen (Denmark). Thesis title: "The Transiting Exoplanet GJ 1214b". Supervisor: U. G. Jørgensen, T. C. Hinse. Comment: This work resulted in a peer-reviewed publication.

Supervision experience - International PhD projects

2018-2021	Ekrem M. Esmer. Ankara University (Turkiye). Thesis title: "Orbital Stability Studies of Substellar Objects in Multibody Systems". Supervisors: O. Basturk, T. C. Hinse, S. O. Selam. Comment: This work resulted in a peer-reviewed publication.
2015-2018	Jeremy Wood. University of Southern Queensland (Australia). Thesis title: "The Dynamics of Ringed Small Bodies". Supervisors: J. Horner, T. C. Hinse. Comment: This work resulted in a peer-reviewed publication.
2011-2014	A. Sekhar. Armagh Observatory/Queens University Belfast (UK). Thesis title: "Evolution of Halley-type Comets and Meteoroid Streams". Supervisor: D. Asher, T. C. Hinse.

External teaching activities

September 2024 3-hr FysikLab workshop for 16 students following the KASTEM course (https://www.ind.ku.dk/projekter/kastem/) offered by Magdalena Kersting at Department of Science Education, University of Copenhagen. Teaching certificate exist and can be requested. Course URL: https://kurser.ku.dk/course/nndk20004u/

October 2025 4-hr FysikLab workshop for 12 students following the KASTEM course (https://www.ind.ku.dk/projekter/kastem/) offered by Magdalena Kersting at Department of Science Education, University of Copenhagen. Teaching certificate exist and can be requested. Course URL: https://kurser.ku.dk/course/nndk20004u/

Chairing / Member of Thesis Committee

Jun. 2019	Pía Cortés Zuleta, Universidad de Chile, MSc thesis. (Supervisor: P. Rojo).
Nov. 2025	Vicente Maldonado, Universidad de Chile, MSc thesis. (Supervisor: P. Rojo)

Teaching experience - Informal teaching and supervision activities

Various SDU/FKF FysikLab workshops for highschoolers. For details see: https://zenodo.org/search?q=hinse&l=list&p=1&s=10&sort=bestmatch .

Workshop-lecturer at the “TNU/SGI International Summer School of Research and Exploration in Astronomy 2024”, Tay Nguyen University, BMT City, Vietnam.

Workshop-lecturer at “The 2nd Recontres du Vietnam on Exoplanetary Science 2018” conference, Quy Nohn, Vietnam.

Assistant teacher at hands-on exercise at the Carl Sagan Summer School Workshop 2012, 2014, 2015, 2016, 2017, 2018 @ NExScI/IPAC/California Institute of Technology, California, Pasadena, USA.

Research mentor for summer student Anna Carolina Sirico. Korea Astronomy & Space Science Institute (South Korea). Research internship June - July 2015. Project “Implementation of an algorithm to determine absolute dimensions of a transiting extrasolar planet by least-squares minimization”.

Head of Research & Education (R&E) 2014 - 2015 program (Daejeon Science Highschool for gifted STEM students/KASI). 3 hrs per week during spring/fall. Project title: “Setup, testing and operation of an automatic double-station meteor detection network”, S. Korea. Comment: This work resulted in a peer-reviewed publication and earned a science competition award.

Head of Research & Education (R&E) 2015 - 2016 program (Daejeon Science Highschool for gifted STEM students/KASI). 3 hrs per week during spring/fall. Project title: “Development of an orbit integration algorithm and its application to the Ceres orbit”, S. Korea. Comment: This work earned a science competition award.
Starry night shows at Daejeon Planetarium, 2018, 2019. Communicating astronomy to the public and astronomy evening school. Daejeon. South Korea.

Evaluation of teaching and supervision

In august 2025 I was nominated by SDU students for the SDU Faculty of Science Teaching Award.

In spring 2025 I conducted a structured workshop for talented students (ATU, Akademiet for Talentfulde Unge) enrolled for a 4 hrs long hands-on workshop. Title: "Galaksehobe og mørkt stof". This activity was evaluated with 4.6 / 5.0 in total score. Certificate/report exist and can be requested.

In summer 2024 I supervised a SDU student who presented her work at a international science conference. She received the best poster award. Certificate exist and can be requested.

I frequently receive praise for my science communication, teaching, supervision and outreach activities.

During my time in South Korea (Research & Education) students were awarded with national as well as regional science awards. Teaching certificates & award exist and can be requested.

I frequently welcome highschool students for a 3 to 4 hr long hands-on workshop within the FKF/FysikLab framework. I receive 70% praise and 30% bad feedback.

Official teaching certificates for my involvement with teaching activities with University of Copenhagen can be requested at any time.