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| Expected change | |
| Please describe the logic of your project proposal here. | |
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| **CHALLENGE** - Situation that you want to change or improve? | |
| Astronomy students at the Niels Bohr Institute graduate with little to none end-to-end observing experience due to the lack of easily accessible teaching telescopes. This limits the the practicle competitiveness of the astronomy students graduating from The Danish Realm as well as public outreach abilities ot recruit future students. | |
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| **VISION** - A desired state, or long-run change, that you want to occur and that the Challenge currently prevents? | |
| Graduate leave the Niels Bohr Institute with an intuition for a full end-to-end observing program- planning, acquisition, and reduction- to work diretly with larger telescope facilites and survey teams with only minimal additional training. | |
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| **MISSION** – describe how your approach addresses the Challenge in order to progress towards the vision. | |
| The mission is to establish a rooftop observatory ontop of the Niels Bohr Building equipped with an optical and two small radio telescopes. The facility will be safe and intuitive for students and guests of all levels to observe astronomical sources or learn about the telescope instruments. | |
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| **PROJECT SUCCESS** – what do you aim to achieve with this project? | **DELIVERABLES** – what should the project deliver to achieve project success? |
| Establishing a fully working optical and radio telescope, including interferometry, for students as an environment to facilitate astronomical teaching, experience and outreach. The observatory will be utilized for >200 observing hours per acadmic year for projects and coursework. 100% of the MSc astrophysics students complete 10-20 observing hours without active supervison that cover planning, acquisition and basic reduction. Courses such as Observational Astrophysics, Astronomical Data Processing, Experimental Physics would adopt this facility as core part of the curriculum. While courses such as Machine Learning, Applied Statistics, Electromagnetism 1 & 2 (including Nanophysics track), Extragalactic Astrophysics, and Teacher‑training courses may assign observatory projects. The facility will support independent student projects at university such as bachelor/master thesis as well as Project Uden Kursregi. Finally Gymnasium students can use the observatory for Studieretningsprojekt. | A fully operational rooftop observatory will be installed on the Niels Bohr Building, complete with integrated data‑processing and storage facilities that are safe and intuitive for users to access. The facility will be a core component of Observational Astrophysics, Astronomical Data Processing, and Experimental Physics curriculums, and will also support optional project work in other courses. To extend the facilities impact, the project will offer regular training sessions for University of Copenhagen lecturers and visiting gymnasium teachers, with aim to incorporate the observatory into their own teaching. |
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| **ASSUMPTIONS** – does your intervention rest on evidence and is the project dependent on external factors? | |
| The project meets a demand of many lecturers at the Niels Bohr Institute to have an observatory on the roof to support teaching and outreach programs. The institute has reserved space to build a small obseevatory and a room to store the backend electronics. The institute is commited longterm to provide this space and administrative support to make the project possible. Technical staff will be available to maintain and repair the instruments as well as teach new curious staff on the facility usage. | |

