

## PhD position at the Helmholtz-Lund International Graduate School

## Search for dark matter and novel tracking detector technologies for the upgraded ATLAS tracker

The ATLAS detector will undergo a major upgrade known as Phase-II to improve physics performance and to cope with the increase in luminosity. One part of this project involves the production of the Silicon modules for the Inner Tracker of the upgraded ATLAS detector. The main elements are the particle sensors made of Silicon and the associated electronics for readout and control. The production of the modules are collaborative process, and DESY and Lund University are two of the institutes responsible for the assembly and qualification, which are the final steps of the module production. The other part of the project is to carry out a data analysis to search for dark matter particles using the data taken by the current detector. HELIOS is a co-supervision and exchange program between Hamburg and Lund, and a doctoral degree awarded by Lund University. The research will be carried out at DESY, with visits to Lund University for a total of about 6 months during the 4 years of the PhD program.

## Deadline 28th February 2021

HELMHOLTZ SPITZENFORSCHUNG FÜR GROSSE HERAUSFORDERUNGEN

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