

SUNGKYUNKWAN UNIVERSITY

DEPARTMENT OF PHYSICS

Suwon 16419, Republic of Korea

Tel: +82-31-290-7040 Fax: +82-31-290-7055

<http://physics.skku.ac.kr>

Prof. Carsten Rott

Associate Professor

Natural Science Building 1, Office #31109

Suwon, Gyeonggido 16419, Korea

Office: +82 (0)31-290-5902

Email: rott@skku.edu

Postdoctoral Opportunities in Astroparticle Physics at SungKyunKwan University, South Korea

The [Neutrino AstroParticle Physics Lab \(NAPPL\)](#) group from [Prof. Carsten Rott](#) at [Sungkyunkwan University \(SKKU\)](#) has an immediate opening for a postdoctoral fellowship. Successful candidates will join our team to work on the [IceCube Neutrino Observatory](#) and the IceCube Upgrade. [The group](#) also has critical responsibilities in the [JSNS2 sterile neutrino search](#), [Hyper-Kamiokande](#) (including a vision for a [large volume neutrino detector in Korea](#)), and on the [COSINE](#) dark matter search.

Our research on IceCube is centered on identifying the origins of high-energy astrophysical neutrinos, with a particular focus on scenarios that involve physics beyond the standard model. Our team is leading searches for dark matter, solar atmospheric neutrinos, and building a novel camera-based calibration system. Our objective is to critically enhance the capabilities of the IceCube detector through a reduced neutrino pointing uncertainty, which is essential for multi-messenger science. We plan to achieve the improved pointing by precisely measuring the optical properties of the detector medium using the camera system. The IceCube Upgrade consists of seven additional strings of novel optical sensor modules in the center region of the IceCube Neutrino Telescope, that will be deployed in 2022/2023.

The ideal candidate should be highly motivated, have basic hardware experience, excellent data analysis skills, and if necessary be willing to travel to Antarctica for sensor deployments. It is expected that the successful candidate assumes leadership in the IceCube Upgrade science and calibration efforts.

Candidates should hold a Ph.D. or have recently submitted their thesis in experimental particle physics, astroparticle physics, or a related field. The initial appointment will be for one year with the expectation that the contract will be renewed annually pending research performance. We offer internationally competitive salaries and senior candidates may be appointed at the level of research professor.

To apply, please send your CV, publication list, and a short research statement to Prof. Carsten Rott rott@skku.edu. Applicants should arrange for at least two letters of recommendation to be sent directly to the same address. The review of applicants will start August 15th, 2020 and will continue until the position is filled.

More information about the group and current research efforts can be found on our [homepage](#). If you have any questions or would like to get further information please feel free to contact Prof. Carsten Rott rott@skku.edu.