



Department of Experimental Particle Physics

Date: April 7, 2023

PhD Student position at Experimental Particle Physics Department F9 at Jožef Stefan Institute, Ljubljana, Slovenia

“Development of radiation hard particle detectors with high time resolution”

We are offering a 4-year PhD Student position (“Mladi raziskovalec”) at Jožef Stefan Institute’s Experimental particle physics department F9.

The work will encompass development and production of silicon particle detectors with high timing resolution – LGAD (Low Gain Avalanche Detectors). LGAD provide a time resolution below 50 ps and are used for measurements of time of arrival of single particles. First LGAD based detector system will be ATLAS HGTD, which will be installed in the ATLAS experiment at CERN, Geneva. LGAD also have potential for medical beam applications.

Work as a PhD Student will include:

- Laboratory measurements of LGAD properties using laser and radioactive sources;
- Measurements of LGAD properties using a test beam at CERN SPS;
- Cooperation during installation of ATLAS HGTD into ATLAS experiment;
- Workshop and conference attendance.

The position includes travelling to laboratories CERN (Geneva), DESY (Hamburg) and others. The amount of time spent abroad is adjustable based on personal preferences.

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