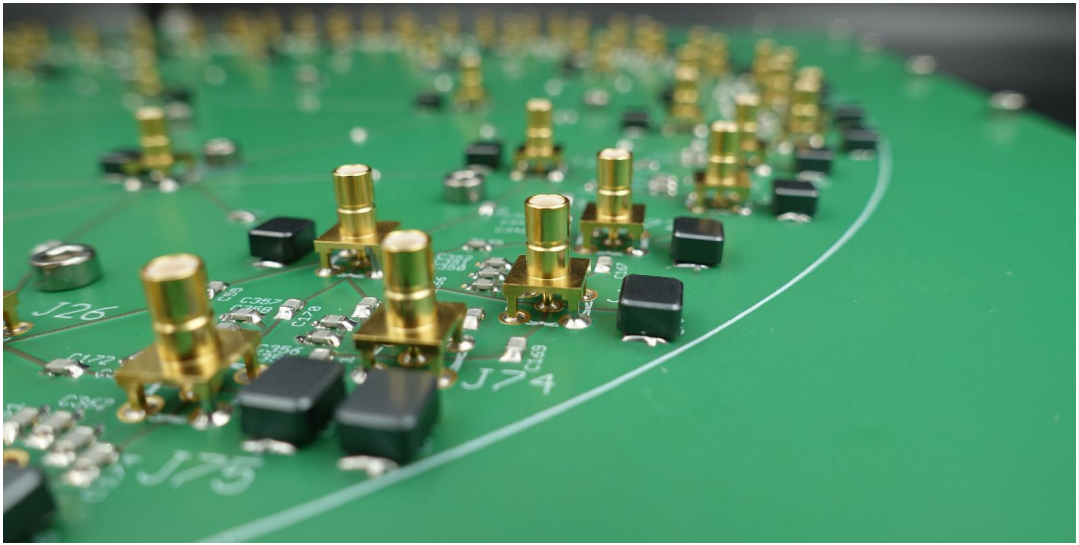
Workshops

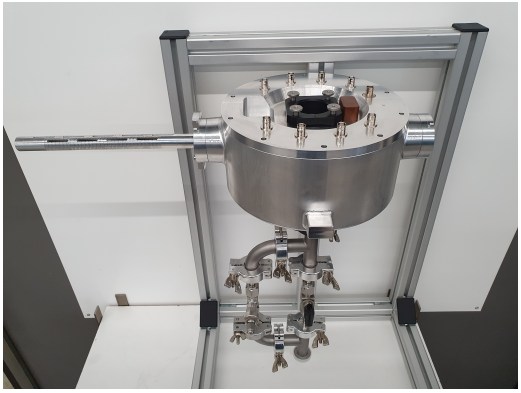


Circuit that simulates the dynamics of wave propagation in a hyperbolic space.

Mechanical Workshop

The **mechanical workshop** produces complex parts for all the experiments in house as well as for the large-scale astrophysics and particle physics experiments our groups are contributing to and helps to find solutions for technical problems. The high competence of the workshop is well appreciated also by other institutes of the university or external companies.

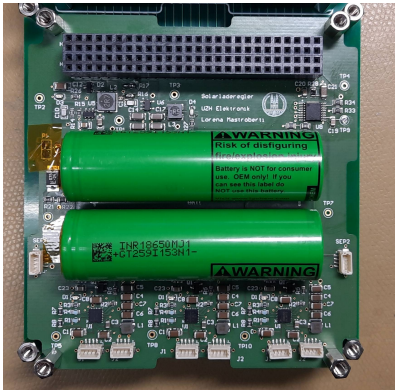
https://werkstatt.physik.uzh.ch

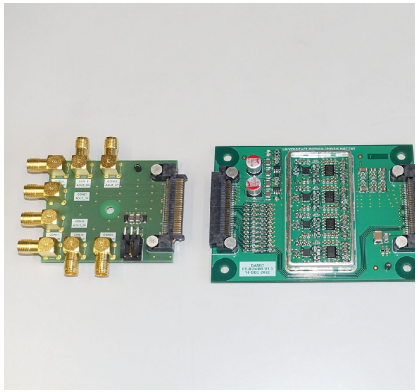


The three photograph are examples for work done in our workshop: (left) the TPC for the DARWIN demonstrator (group Baudis); (middle) the GATOR screening facility to verify the quantum mechanical Pauli principle (group Baudis); (right) the nanodosimeter that is used for the measurement of individual ionizations to quantify biological damage caused by radiation (group Schneider).

Electronics Workshop

Besides maintenance work for the existing laboratory infrastructure the **electronics workshop** continuously supports the groups of our institute with technical advice, prototypes and new developments for ongoing projects. Apart from many ongoing and newly developed projects for the research groups of our institute we designed a frontend board for DAMIC-M with adapters and four AC-coupled signal amplifiers for the processing of the CCD signals (middle figure). The local control of the power supply of the amplifiers as well as various low pass filters for the control signals and supply voltages of the CCD are also on the board.





Left: 6-channel solar-powered battery charge controller for a potential mini-satellite application. This was the final practial work of the apprentice Lorena Mastroberti. Middle: frontend board for DAMIC-M. Right: Drivers for the Van De Graaff generators used in a lecture hall experiment. Load changes, which are caused by the charge shifts, can be visualized directly by the motor speed.