

## MESA

– a fully instrumented ERL project for nuclear and particle physics experiments

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MESA is a recirculating superconducting accelerator under construction at Johannes Gutenberg-Universität Mainz. It can be operated in either external beam or ERL mode to be used for high precision particle and nuclear physics experiments and will be a fully instrumented ERL user facility with three major experiments right after completion.

The operating cw beam current and energy in EB mode is 0.15 mA with polarized electrons at 155 MeV. In ERL mode a polarized beam of 1 mA at 105 MeV will be available. In a later construction stage of MESA the beam current in ERL-mode shall be upgraded to 10 mA (unpolarized). Civil construction and commissioning of components like electron gun, LEBT and SRF modules are ongoing already. A project overview will be presented including the accelerator layout, the experimental setups, the current status and an outlook to the next construction and commissioning steps.