



Superconductivity for  
Sustainable Energy Systems  
and Particle Accelerators



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## Demand-driven operation of the cryogenic facilities for accelerator operation at FAIR

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For FAIR a high variety of experimental set-ups is expected. The operations scheme of SIS100 may vary in the full range of the magnets ability for seconds or several hours. Consequently, the refrigerator of FAIR has to handle different heat loads, as well as the high liquefaction rate for the start-up of the SuperFRS, with its helium inventory of 6.7 t and a cold mass of 1500 t. During the design phase of the cryogenic facilities, it was taken into account, to have a reliable supply adopting to its actual demands.

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