# STATUS OF THE FAIR SIS100/300 SYNCHROTRON DESIGN

P. Spiller, U. Blell, H. Eickhoff, E. Floch, E. Fischer, P. Hülsmann, J. Kaugerts, M. Kauschke, H. Klingbeil, H. König, A. Krämer, D. Krämer, U. Laier, G. Moritz, C. Omet, N. Pyka, H. Ramakers, H. Reich-Sprenger, M. Schwickert, J. Stadlmann, H. Welker, A.D. Kovalenko;

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**Abstract**

SIS100 and SIS300 are the main accelerators of the FAIR project. The two stage synchrotron concept provides maximum intensities of heavy ion and proton beams in average and per cycle. To accommodate optimal technical solutions, the structure of the magnet lattices of both machines were recently reviewed and in case of SIS300 modified. Consequently, more appropriate technical solutions for the main magnets and quench protection systems could be adapted. The general machine layout and design, e.g. of the demanding extraction schemes, have been detailed and open design issues were completed. The development and design of all major technical systems is in progress and prototyping has started or is in preparation.