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Prospects for open heavy-flavour and quarkonium measurements with NA60+

The high-intensity beams provided by the CERN SPS in a wide energy interval offer a unique opportunity to investigate the region of the QCD phase diagram at high baryochemical potential. The NA60+ experiment, proposed for taking data with heavy-ion collisions at the SPS in the next years, has the strong potential to provide new insights into the QCD phase diagram via measurements of rare probes in a beam-energy scan of Pb-Pb and p-A collisions in the interval $\sqrt{s_{NN}} = 6$-17 GeV.
In this talk, the prospects for measurements of hidden and open charm will be presented.\\
Open charm hadrons will be measured from their decay into charged hadrons, reconstructed from the tracks in the silicon detectors of the vertex telescope.
This will enable high-precision measurements of the yield of D^0, D^+, and D_c^+ mesons, and Λ_c^+ baryons, thus allowing us to constrain the transport properties of the QGP and the charm-quark hadronisation. Charmonium states, J/ψ and ψ(2S) will be measured through dimuon decays reconstructed with the muon spectrometer. By measuring the charmonium yield in p-A and Pb-Pb. Pb collisions at different collision energies, NA60+ will provide a unique opportunity to study the threshold energy for the onset of deconfinement.\\
The competitiveness and complementarity of NA60+ in the landscape of the experiments foreseen at other facilities in the next decade will be discussed.

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