

DIS 2015 - XXIII. International Workshop on Deep-Inelastic Scattering and Related Subjects

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A High Energy e-p/A Collider Based on CepC-SppC

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The proposal of Construction of CepC and SppC, the next generation energy frontier e+e- and pp circular colliders, in a common accelerator complex provides an opportunity to realize collisions of protons or ions with electrons or positrons in an ultra high center-of-mass energy range up to 4.2 TeV. This paper presents a preliminary design study of this e-p/A collider based on the CepC-SppC facility. The design parameters for different operational scenarios and anticipated luminosities (up to middle of $10^{33} \text{ cm}^{-2} \text{ s}^{-1}$) will be given. We also discuss two staging approaches to realize this collider with a low cost and at an earlier time

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