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New HXS (Hard X-ray Scattering) beamline design at European XFEL

Tuesday 16 September 2025 17:00 (1 hour)

The European XFEL, located in Schenefeld, Germany is a major X-ray research facility which started operation in September 2017 and generates ultrashort X-ray flashes for photon science experiments with an outstanding peak brilliance. In the six months long maintenance period starting in June 2025 it is planned to build up the new HXS experimental station in the experimental hall and its beam transport system in the tunnel. HXS will be the third experiment of the SASE2 hard X-Ray beamline. For the beam transport system, the scope consists of design, installation and commissioning of ~500m vacuum pipes and implementation of a new Front End. This contribution reports about the design of the vacuum system of the beam transport, that due to space constraints required an unconventional pipe support from the tunnel wall and also reports about the Front End design implementing all the modifications after the experience of more than five years of operation.

Footnotes

Funding Agency

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