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The HED instrument at the European XFEL

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The European XFEL is a superconducting, radio-frequency free-electron laser simultaneously operating three variable-gap undulator SASE beamlines. Each beamline supplies two instruments with X-rays of up to 25 keV photon energy. One of them, the High Energy Density (HED) scientific instrument, will be a unique platform to generate and investigate matter under extreme conditions of pressure, temperature or electro-magnetic fields. For this purpose, in addition to the XFEL, there will be high energy/intensity optical lasers, pulsed magnets and a diamond anvil cell (DAC) setup available. In the first half of the year X-ray commissioning is ongoing before first user operation starts. In the second half of the year optical laser operation is foreseen to begin to be available for users next year. Here the current status of the instrument will be presented.

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