Hamburg Photon Science Colloquium

FREE-ELECTRON QUANTUM OPTICS

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Free electrons offer new opportunities at the interface of ultrafast microscopy and quantum optics. This talk discusses the coherent shaping and readout of free-electron quantum states, as well as recent observations of few-particle correlations. Specifically, Coulomb interaction induces strong momentum correlations in electron pulses, while electron-photon scattering enables tailored nonclassical light and the first realization of electron-light entanglement.

FRIDAY,
27.06.2025

2:00 PM

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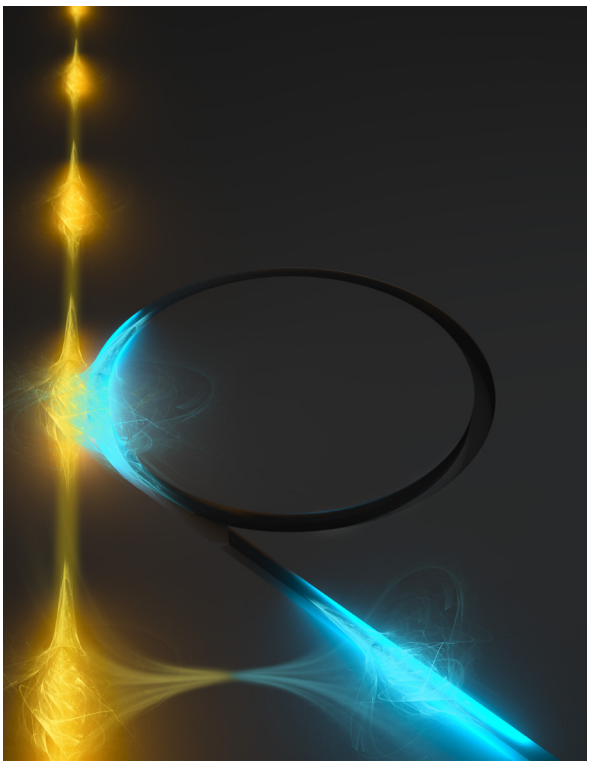

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