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**End to End with Lasers: Today's growing XFEL Landscape**

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X-ray Free Electron Lasers have revolutionized the field of photon science. The first facility going online twelve years ago, LCLS, was already outshining storage rings by several orders of magnitude in terms of peak brilliance. Meanwhile there are several more facilities worldwide in an ever-growing collaboration to further the field. There is a constant push to stretch the envelope of the operational ranges of photon beam properties like wavelength, pulse length, power, polarization and coherence to name a few. This talk will present an overview of current XFEL facilities and their capabilities, introduce the working principle of various operation modes enabling those achievements and explore some future setups envisioned to open the door for new scientific opportunities.