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Undulator and Free Electron Laser radiation for Fundamental Physics research

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Free Electron Lasers are widely exploited in applications and are now very effective tools for different types of studies from Solid State Physics to Structural Biology.
The reliability of these devices, the high spectral flux, the possibility of controlling the spectral purity and the time duration of the individual pulses makes them attractive in further fields of research, including fundamental problems regarding fundamental test in quantum electrodynamics and the search for dark matter as well.

In this talk, we review some of these possibilities and discuss how FEL oscillators may provide the elements for integrated facilities allowing applied and fundamental research within the context of medium size laboratories.

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