HHG beam wavefront characterization at 30 nm

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Abstracts: For the purpose of characterization and improvement of the HHG (High-order Harmonics Generation) eXtreme Ultra-Violet (XUV) coherent beam emitting at the wavelength of 30 nm we developed an unique wavefront sensor based on the PDI (Point Diffraction Interferometer) technique. A simple self-referencing monolithic device produces interferometric patterns with encoded information about measured beam's wavefront profile. We will describe the development, fabrication and alignment issues of the sensor as well as real results of the beam characterization measurements and evaluation outcomes.