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"Femtosecond laser processing of photonic material"

Femtosecond laser processing (FLP) techniques have been receiving enormous attention due to their potential for the generation of new technologies. This area has been driven by the development of ultrashort pulse lasers, which feature high peak intensities and wide spectral band. The technological impact of FLP is present from devices for optical communications to applications in medicine, also having relevant economic impact worldwide. This talk will present the efforts being made by the Photonics Group at the University of Sao Paulo in the development of photonic structures with femtosecond pulses, from the fabrication of 3D structures to integrated photonics, including micro -lasers and non-linear guides, to the development of platforms for Biophotonics and quantum information systems.