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Realização



Abstract



Cleber Renato Mendonça

Presentation: Ultrafast laser processing for novel photonic system

Abstract



Ultrafast laser processing has revolutionized material science and photonics, offering high resolution and the ability to precisely tailor material properties for applications ranging from high-speed optical communications to biomedical breakthroughs. In this talk, we will present some of our recent breakthroughs, where ultrafast lasers are at the core of our efforts to develop the next-generation photonic systems. Our work spans 3D micro- and nanofabrication, integrated photonic devices, including on-chip micro-lasers and nonlinear waveguides, and innovative platforms for biophotonics and quantum technologies. These advancements are paving the way for more efficient, compact, and functional photonic devices and systems, with the potential to transform multiple areas of science and technology.