

**Propagation of the femtosecond laser pulses in random access two-photon microscope**

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Abstract: Propagation dependence of chirp in Gaussian pulses and beams due to angular dispersion will be addressed, which help the understanding of the femtosecond laser pulse in two-photon microscopy involving angular dispersion.

KEY WORDS: neuronal activity, two-photon microscopy, acousto-optic deflector, dispersion compensation, random access.