

Frequency-time correlation of the inhomogeneous broadening of a resonance line and data-locking efficiency in various setups for exciting a stimulated photon echo

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Abstract

© 2014 Optical Society of America. This paper discusses the data-locking efficiency when data is recorded by means of stimulated-photon echo and the dependence of the frequency-time correlation coefficient of inhomogeneous broadening in various regions of the excitation of an inhomogeneously broadened line. It is shown that the rate of change of the correlation coefficient depends on the region of excitation of the inhomogeneously broadened line, as well as on the gradients of the external spatially inhomogeneous electromagnetic fields.

<http://dx.doi.org/10.1364/JOT.81.000560>
