

HIGH-ORDER STIMULATED BRILLOUIN
SCATTERING IN SINGLE-MODE FIBERS
WITH STRONG FEEDBACK

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S u m m a r y

We present an experimental and theoretical study of cascaded high-order Stimulated Brillouin Scatterings (SBS) in single-mode fibers. It is shown that because of the backscattering nature of the process, a feedback in the input port is needed for obtaining a significant cascaded effect in nonresonant systems. We also discuss similarities to nonlinear photorefractive processes.