

## **Improvement of optical signal-to-noise ratio of a high-power pump by stimulated Brillouin scattering in an optical fiber**

### **ABSTRACT**

We propose and demonstrate improvement of optical signal-to-noise ratio of a highpower pump by saturated stimulated Brillouin amplification of a backward seed in a fiber. A 27-dB improvement was obtained for a 1-W pump.

**Keyword:** Optical signal-to-noise ratio; Stimulated Brillouin; Highpower pump; Optical fibers