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Title:Silicon-based monolithic optical frequency comb source

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Abstract:We demonstrate the generation of broad-bandwidth optical frequency combs from a CMOS-compatible integrated microresonator. We characterize the comb quality using a novel self-referencing method and verify that the comb line frequencies are equidistant over a bandwidth of 115 nm (14.5 THz), which is nearly an order of magnitude larger than previous measurements. © 2011 Optical Society of America.