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标题: Fast, long-scan-range pump-probe measurement based on asynchronous sampling using a dual-wavelength mode-locked fiber laser
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摘要: A simple, fast and long-scan-range pump-probe scheme is experimentally demonstrated using a dual-wavelength passively mode-locked fiber laser. The pulse trains from the dual-wavelength laser have a small difference in their repetition frequencies inherently determined by the intracavity dispersion. This enables the realization of the asynchronous sampling scheme with a tens-of-nanosecond-long delay range and a picosecond scan step at a millisecond scan speed. Instead of two synchronized ultrafast lasers in the traditional asynchronous sampling scheme, just one fiber laser is needed in our scheme, which could significantly simplify the system setup. (C) 2012 Optical Society of America
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