June 2nd, 2014 - 10:00 a.m.
Building 99, Ground Floor, Seminar Room III

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Mode-Locked Fiber Lasers for Sensing Applications

We are working on passively and actively mode-locked fiber lasers for sensing applications. For the passively mode-locked fiber lasers, we use carbon nanotube (CNT) or graphene as the fast saturable absorber. We could generate intense short pulses, which lead to the flat and broadband supercontinuum (SC) generation in nonlinear fibers. Also, we used a new-type of wavelength-swept lasers based on the active mode-locking mechanism and intracavity dispersion, called the dispersion tuning, which has the advantage in fast and wideband sweep. We are applying these broadband SC sources and wavelength-swept lasers to optical coherence tomography (OCT).