

Narrow-band THz emission from laser-modulated beam

Dao Xiang
SLAC

I will discuss a scheme to generate enhanced narrow-band THz radiation through down-conversion of the frequency of two optical lasers using laser-modulated electron beams. This scheme is analogous to the well-known difference frequency generation technique in laser community, except here the relativistic electron beam serves as the nonlinear medium. Test of this technique at SLAC's NLCTA will be discussed and the preliminary experimental results will be presented.