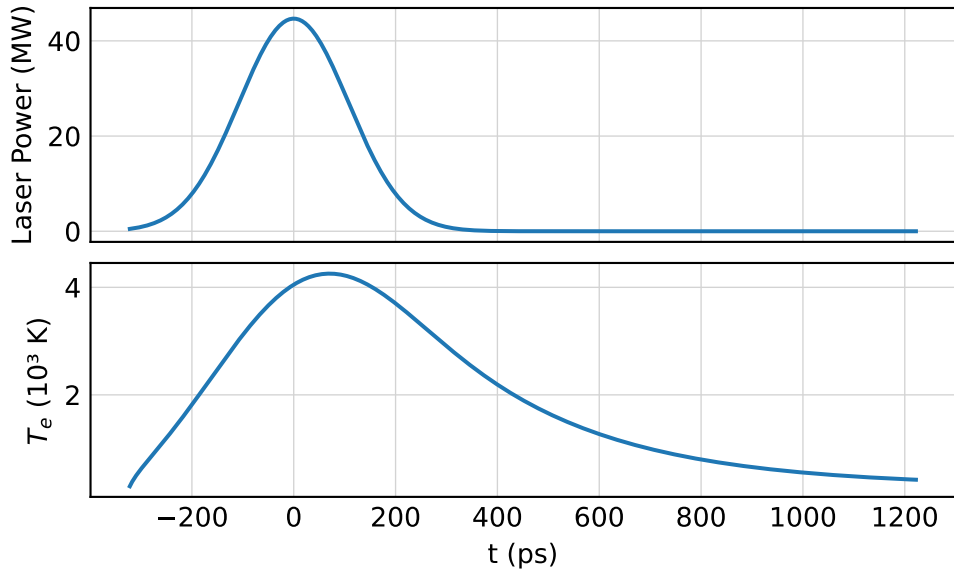
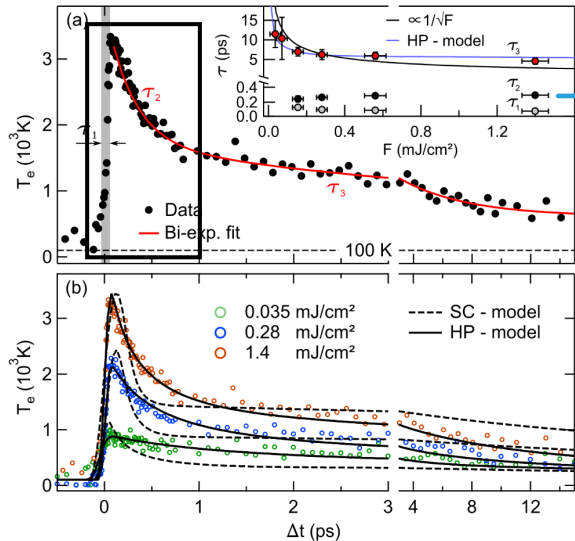
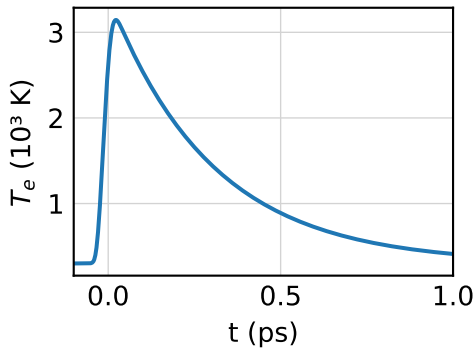


Thermal Radiation of Hot Electrons

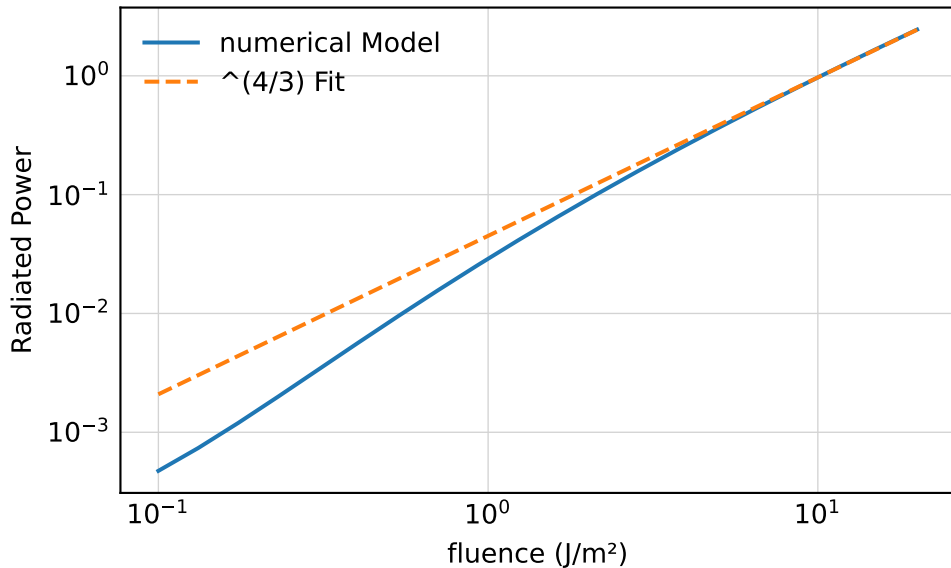
Leon Oleschko
25.04.2025



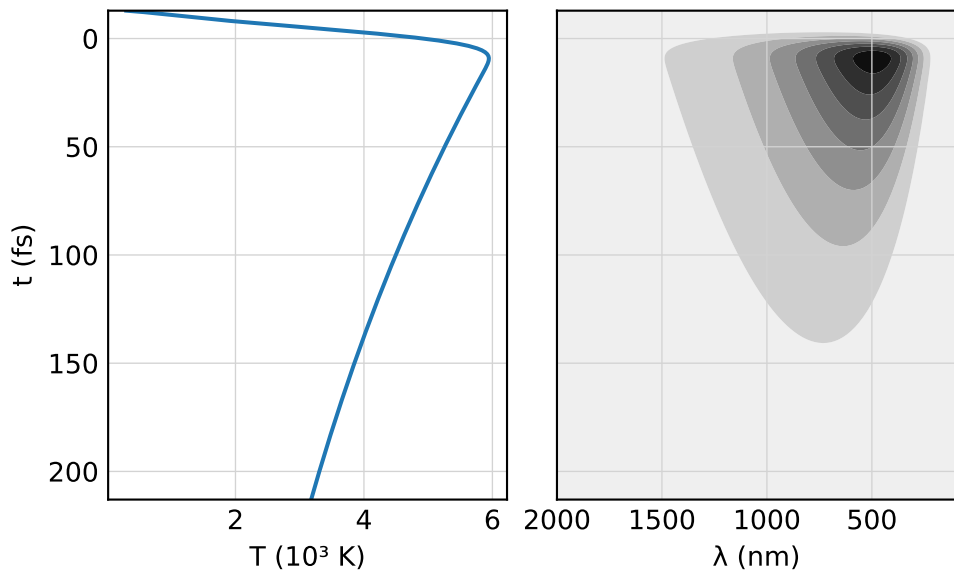
Validation



"Hot electron cooling in graphite", Stange et al. 2015 (Fig. 4)

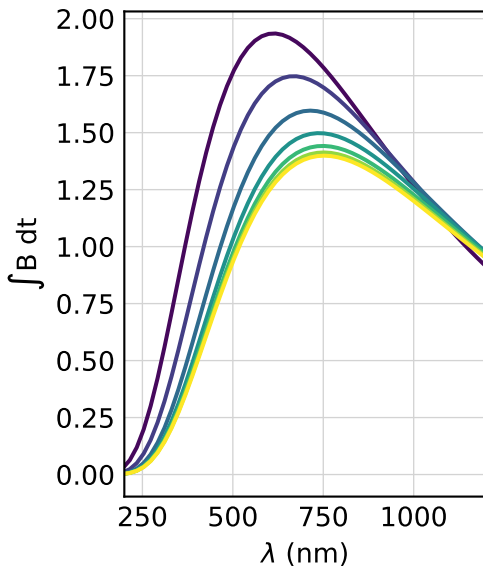
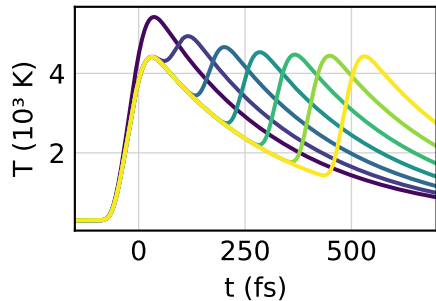
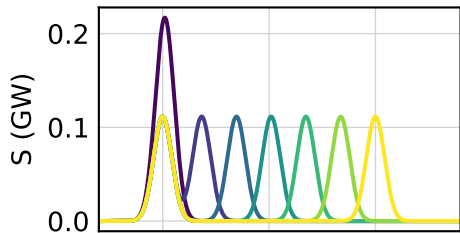


250 fs Laser pulse with different fluence

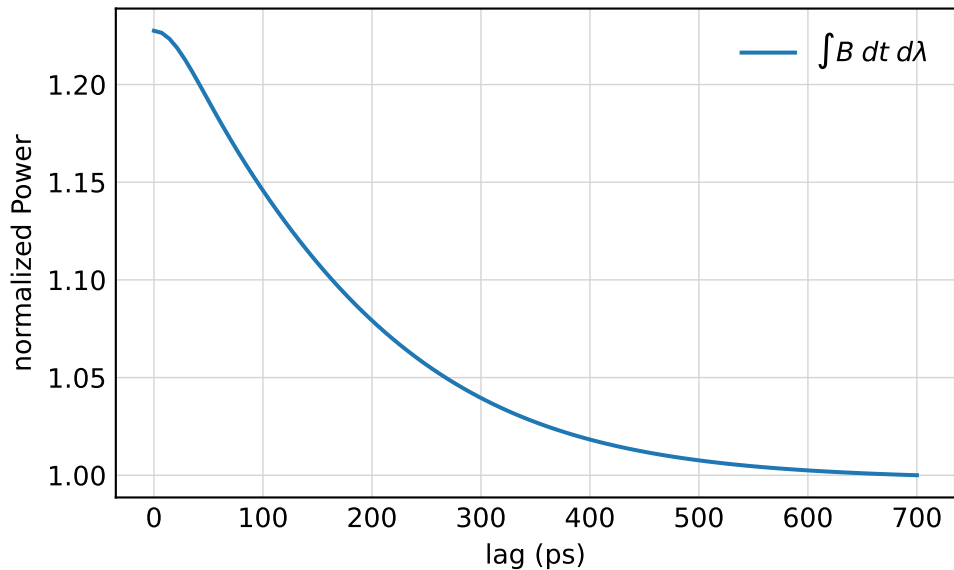


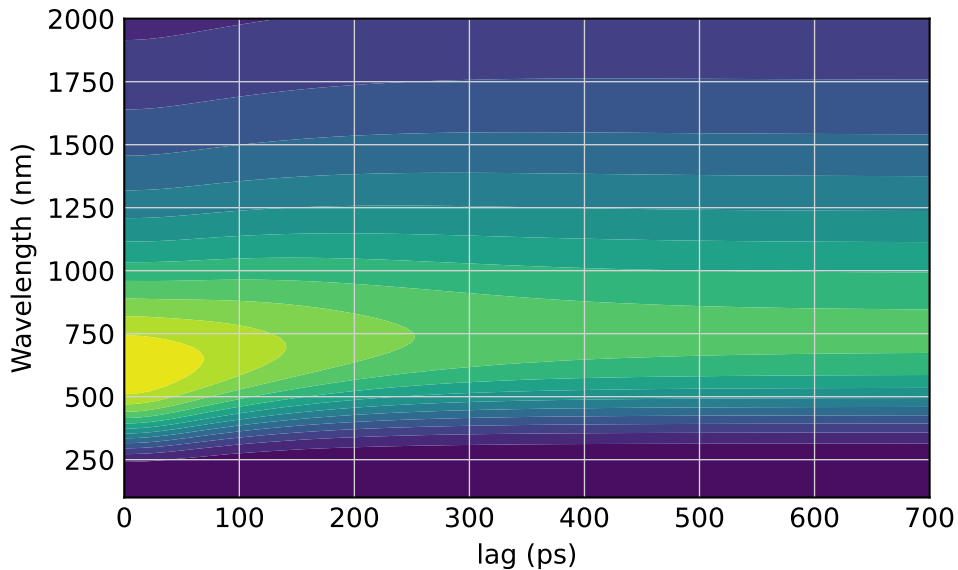
Thermal radiation after 50 fs Laser pulse

Best Streak Cameras have resolutions of 180 fs. [Wikipedia: Streak Camera]

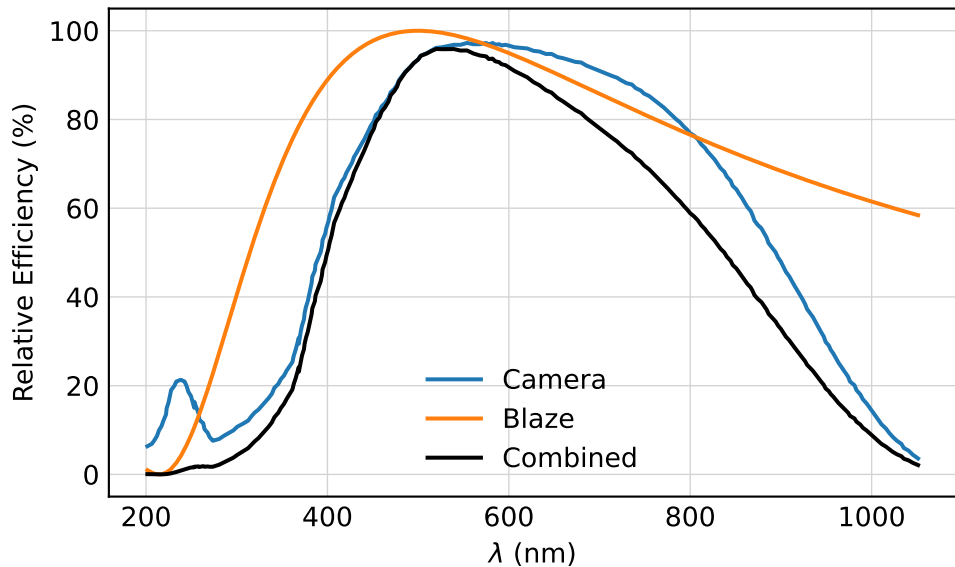


Consecutive 50 fs Laser pulses

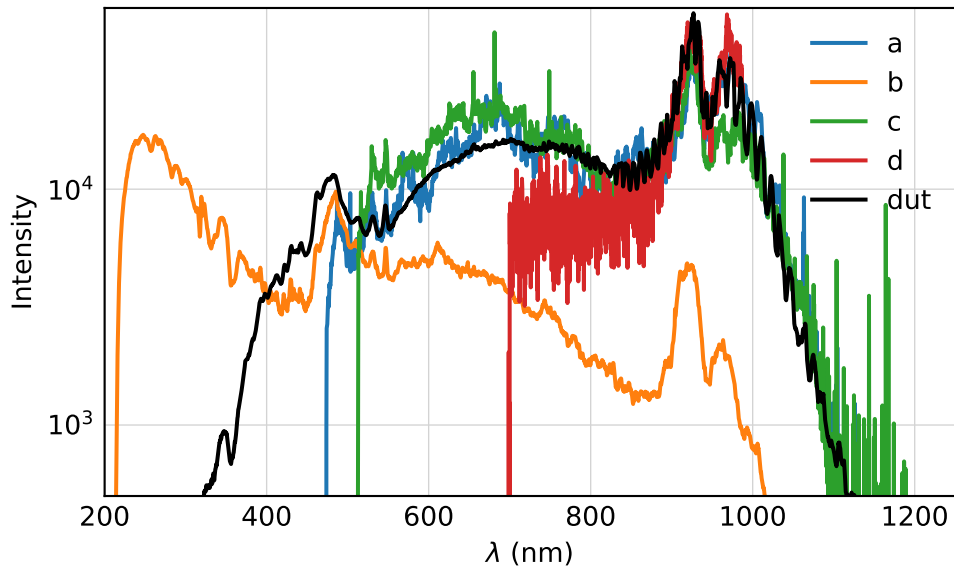




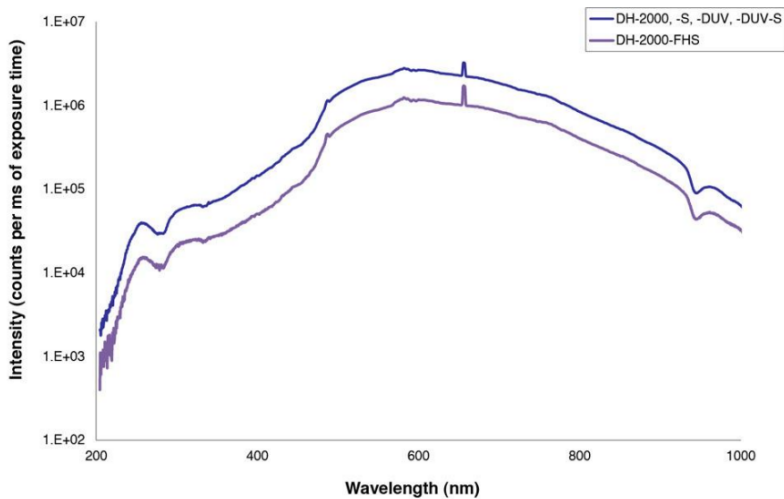
Autocorrelation using 50 fs Laser Pulses

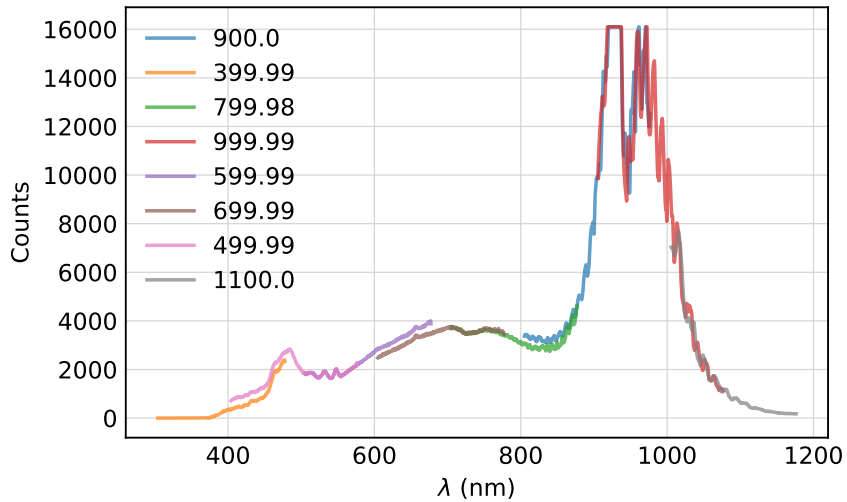


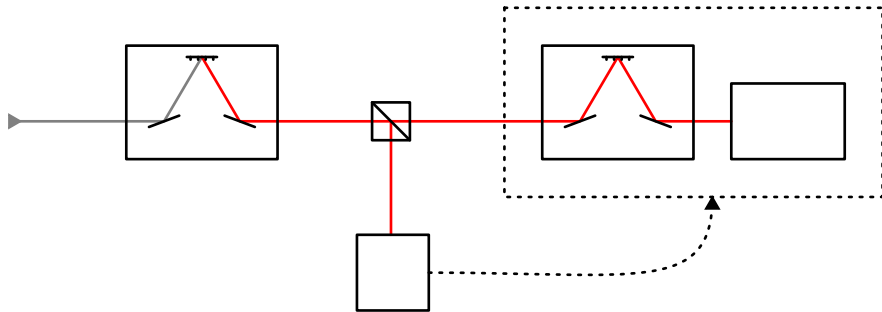
"Ripple correction of high-dispersion IUE spectra - Blazing echelles", Barker 1984

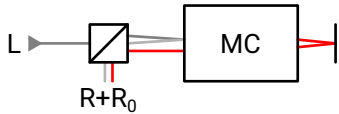
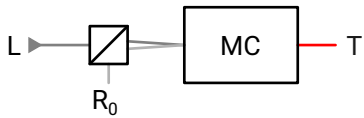


DH-2000 Deuterium Tungsten Halogen Spectral Output









$$T = \eta_{\leftarrow} \eta_{\text{Detektor}} L$$

$$R = \eta_{\leftarrow} \eta_{\rightarrow} \eta_{\text{Detektor}} L$$

$$\Rightarrow \eta_{\leftarrow} = R/T$$

