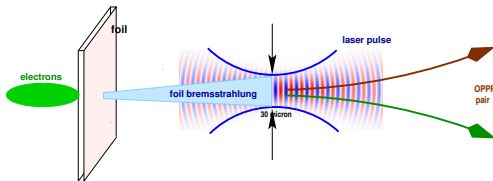


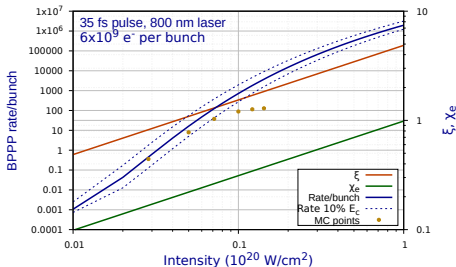
BPPP asymptotic rate and monte carlo

- BPPP is OPPP integrated over bremsstrahlung photon spectrum
- Rate is and exponential asymptote for $\xi > 1/\sqrt{\chi_e} \gg 1$
- Simple dependence on Schwinger critical field
- Real experiment has gaussian pulse with varying intensity (ξ)
- Monte carlo shows a good match for low ξ but varies thereafter
- Experimental effects need to be "unpacked" - angular spread, gaussian pulse
- Need to include full rate to compare with exponential

Bremsstr. photon pair prodn (BPPP)



BPPP asymptotic rate



$$\Gamma_{\text{BPPP}} \rightarrow \frac{\alpha m^2}{\epsilon_p} \frac{9}{128} \sqrt{\frac{3}{2}} \frac{X}{X_0} \chi_e^2 \exp \left[-\frac{8}{3\chi_e} (1 - 1/15\xi^2) \right]$$