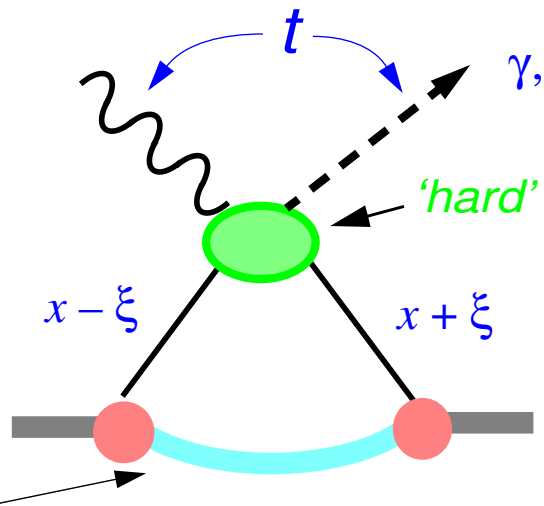
Generalized Parton Distributions



$$t = \Delta^2 = (P' - P)^2 \qquad \xi \equiv -\frac{2\Delta}{P}$$

$$M \sim \int dx T_{HARD} \bullet T_{SOFT}$$

$$T_{SOFT} \sim P(x)\Sigma e_q^2 F(x,\xi,t)$$

$$F(x,\xi,t) \propto$$

$$H^q(x,\xi,t)U'\gamma^+U + E^q(x,\xi,t)U'i\sigma^+ \cdot \frac{\Delta}{2M_N}U$$

$$+ \tilde{H}^q(x,\xi,t)U'\gamma^+\gamma_5 U + \tilde{E}^q(x,\xi,t)U'i\gamma_5 \cdot \frac{\Delta}{2M_N}U$$

$$H^q, E^q, \tilde{H}^q, \tilde{E}^q \rightarrow \text{GPD s}$$