## Structure of differential cross section (unpolarized target)

$$\sigma_{ep\to e\gamma p} = \sigma_{\rm BH} + e_\ell\,\sigma_{\rm INT} + P_\ell e_\ell\,\tilde\sigma_{\rm INT} + \sigma_{\rm VCS} + P_\ell\,\tilde\sigma_{\rm VCS}$$

where $\sigma$ even in $\phi$ $\qquad$ $\sigma_{\rm INT} \propto {\rm Re}\,\mathcal{A}_{\gamma^* N\to\gamma N}$

$\tilde\sigma$ odd in $\phi$ $\qquad$ $\tilde\sigma_{\rm INT} \propto {\rm Im}\,\mathcal{A}_{\gamma^* N\to\gamma N}$

| beam charge | beam pol. | combination |
|---|---|---|
| $e^-$ | difference | $-\tilde\sigma_{\rm INT} + \tilde\sigma_{\rm VCS}$ |
| difference | none | $\sigma_{\rm INT}$ |
| difference | fixed | $P_\ell\,\tilde\sigma_{\rm INT} + \sigma_{\rm INT}$ |

so that with

| | |
|---|---|
| only pol. $e^-$ | need Rosenbluth to separate $\tilde\sigma_{\rm INT}$ from $\tilde\sigma_{\rm VCS}$ (different $y$ at same $x_B$ and $Q^2$) |
| unpol. $e^-$ and $e^+$ | get $\sigma_{\rm INT}$ |
| pol. $e^-$ and pol. $e^+$ | get $\sigma_{\rm INT}$ and separate $\tilde\sigma_{\rm INT}$ from $\tilde\sigma_{\rm VCS}$ |