

Measurement of time like n and π^0 TFF in ISR

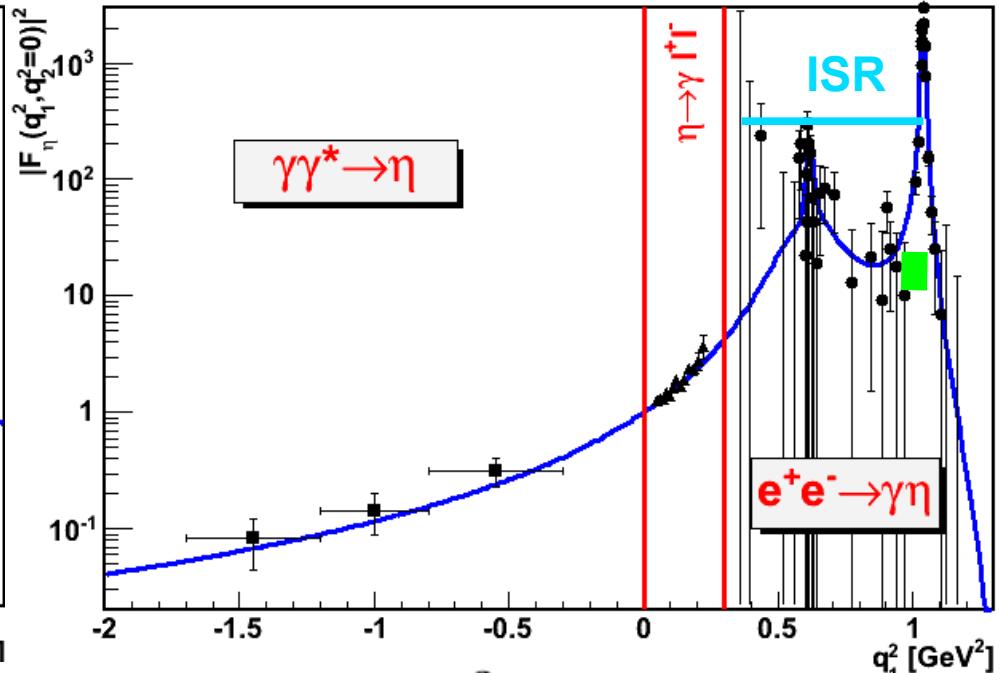
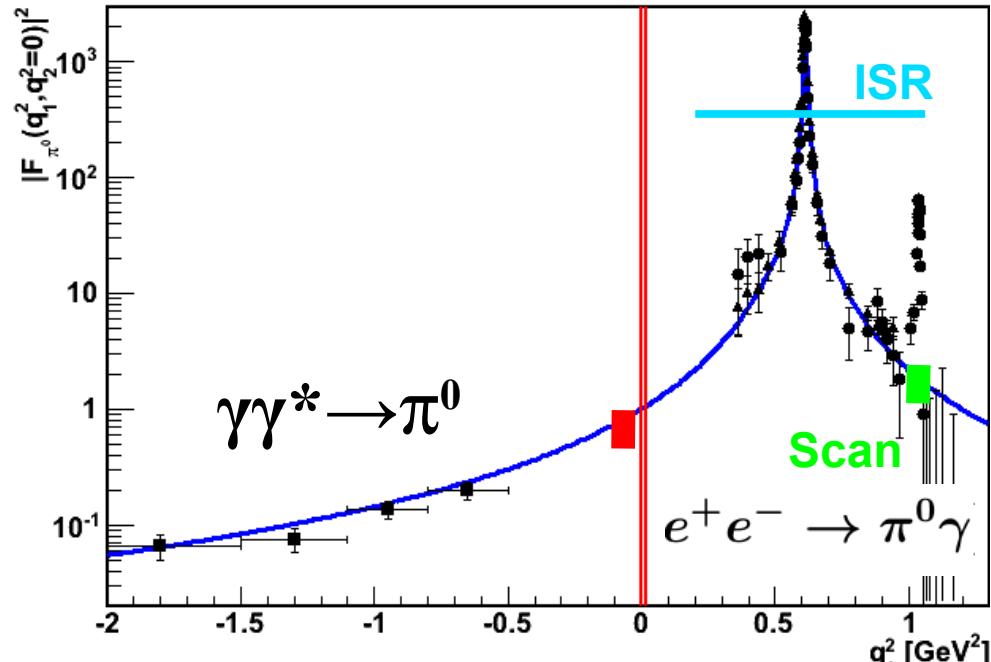
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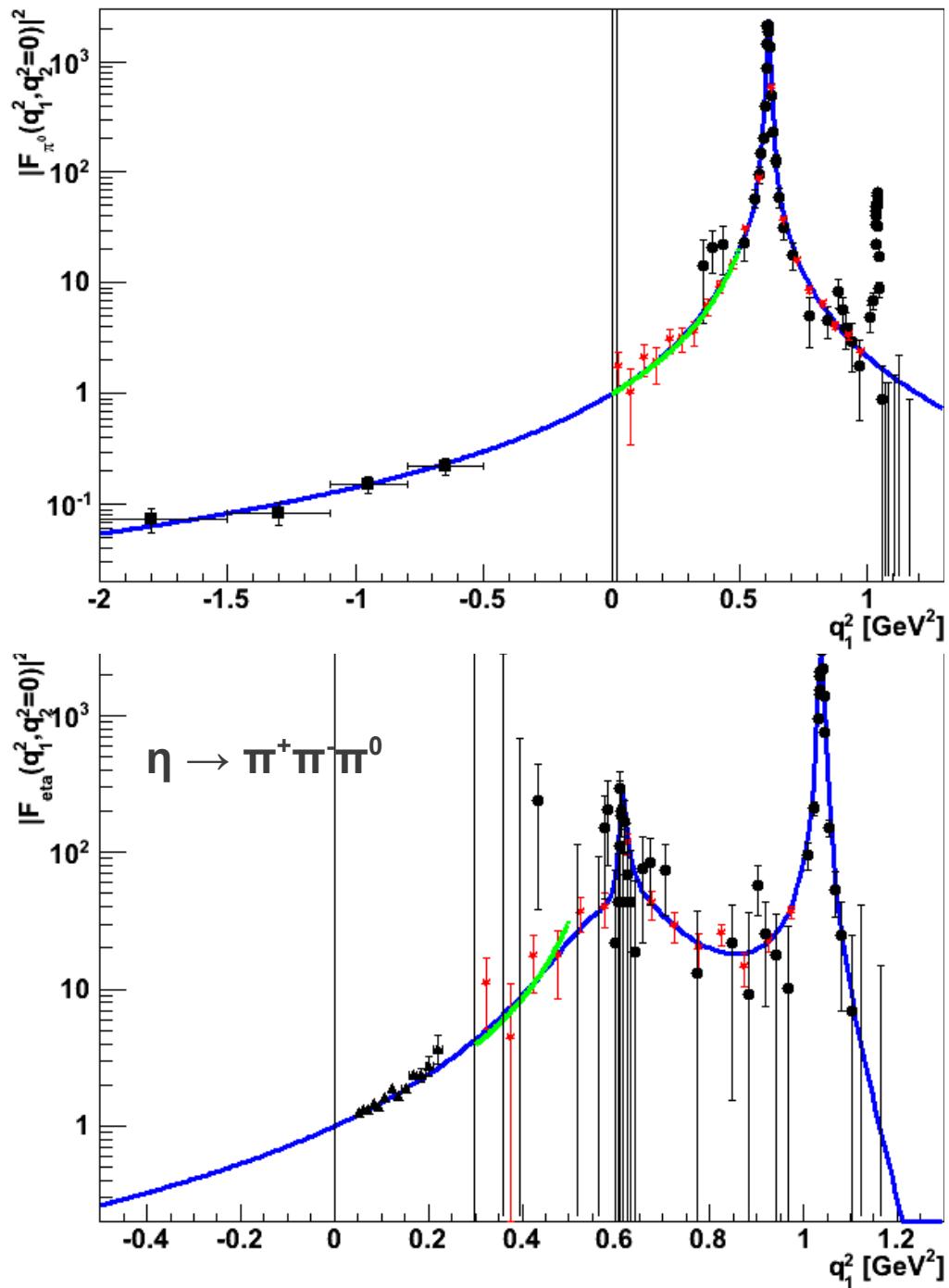
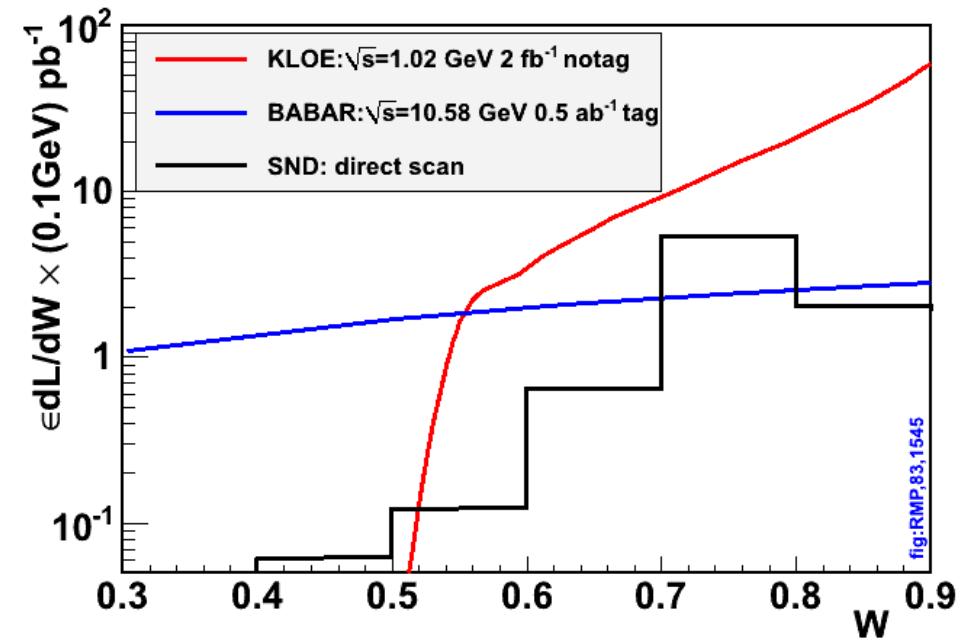
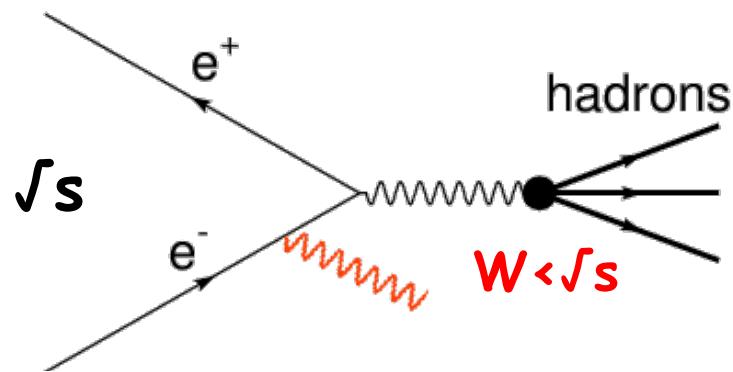
Mainz, September 27th, 2012

η, π^0 single off shell TFF



$$\sigma(e^+e^- \rightarrow P\gamma) = 4\pi\alpha\Gamma_{\gamma\gamma}|F_P(s, 0)|^2 \left(\frac{s - m_P^2}{sm_P}\right)^3$$

An independent $\Gamma_{\gamma\gamma}$ measurement?
 => $\delta\sigma \sim \text{few\%}$ $q < 0.6$ GeV $O(100\text{pb})$
 => precision TFF

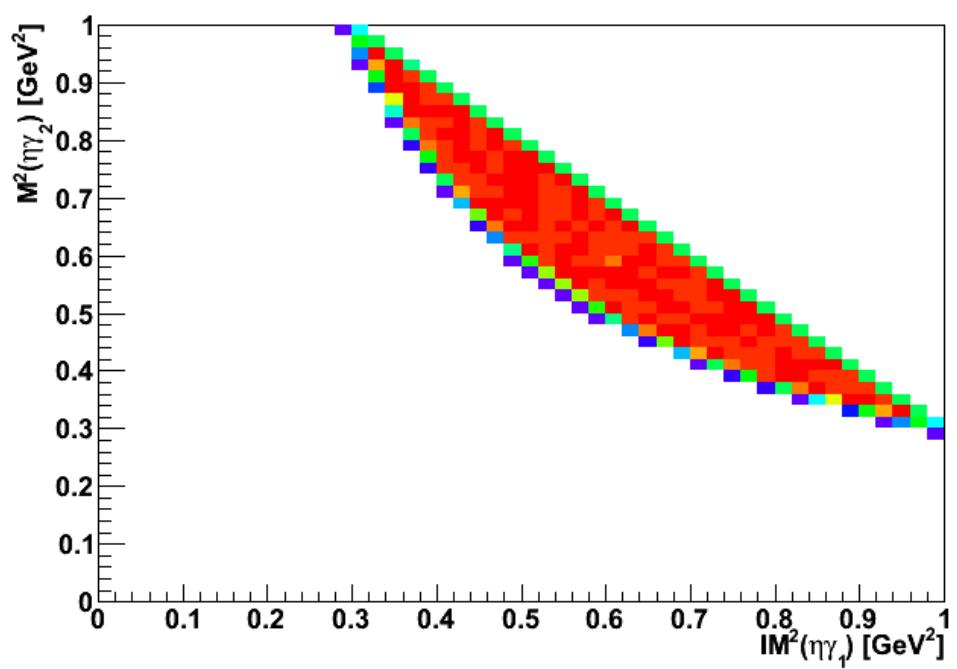
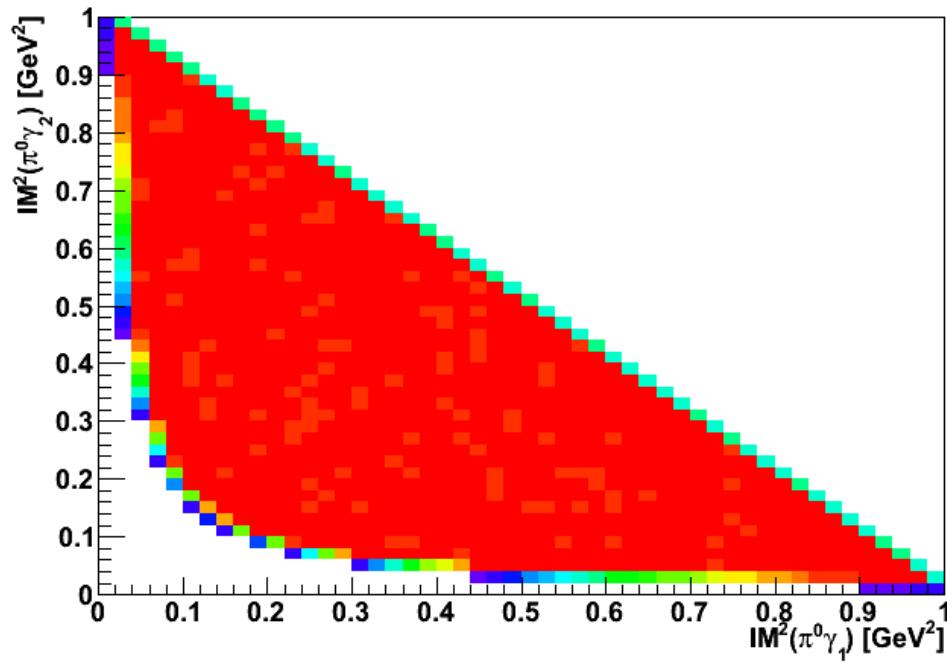


KLOE 2.5 fb^{-1} v ISR 45° to 135° acc 10%

$e^+e^- \rightarrow \pi^0\gamma, \eta\gamma$ in ISR?

Feasibility

- γ ISR identification?
- $e^+e^- \rightarrow \pi^0\gamma_1\gamma_2, e^+e^- \rightarrow \eta\gamma_1\gamma_2$
- Dalitz Plot analysis



$$e^+e^- \rightarrow \pi^0\gamma, n\gamma \text{ in ISR?}$$

Feasibility of the method:

- γ ISR identification?

TFF extraction $e^+e^- \rightarrow \pi^0\gamma, \{(n \rightarrow \pi^+\pi^-\pi^0)\}$

- $e^+e^- \rightarrow \pi^0\gamma, n\gamma$ in PHOKHARA
- KLOE: Can one use Φ data? / background?
- BESIII?: TFF for $\sqrt{s} > 1$ GeV?
- ... Candidates for PhD students ...