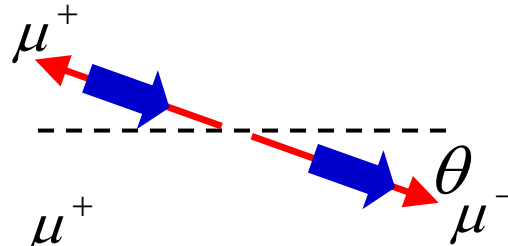
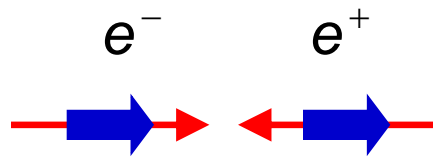


Bestimmung der möglichen Spinamplituden: Photon-Spin = 1

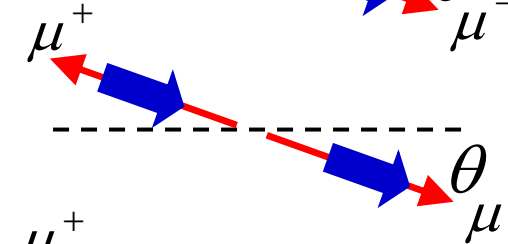
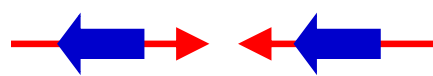
Fig-TP-2.2

$$e^- e^+ \mu^- \mu^+ \\ A(RL \rightarrow RL)$$



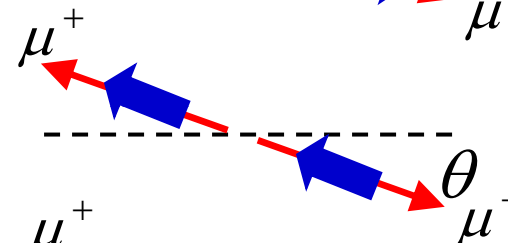
$$\sim \frac{1 + \cos \theta}{2}$$

$$A(LR \rightarrow RL)$$



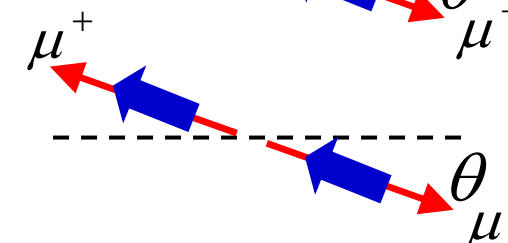
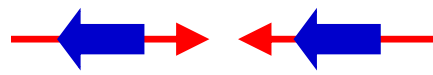
$$\sim \frac{1 - \cos \theta}{2}$$

$$A(RL \rightarrow LR)$$



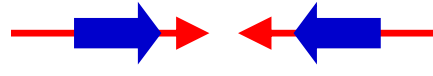
$$\sim \frac{1 - \cos \theta}{2}$$

$$A(LR \rightarrow LR)$$



$$\sim \frac{1 + \cos \theta}{2}$$

$$A(RR \rightarrow \dots)$$



$$A(LL \rightarrow \dots)$$



tragen nicht bei

$$\overline{|A_{fi}|^2} = \frac{1}{4} \sum_i |A_i|^2$$

Summiere aller (Ausgangsamplituden)²
Mittel über 4 mögliche Eingangsamplituden

$$\overline{|A_{fi}|^2} = \frac{1}{4} (1 + \cos^2 \theta) \cdot \left(\frac{4\pi\alpha}{E_{CMS}^2} \right)^2 (\hbar c)^6$$

Totaler Wirkungsquerschnitt für $e^+e^- \rightarrow \mu^-\mu^+$

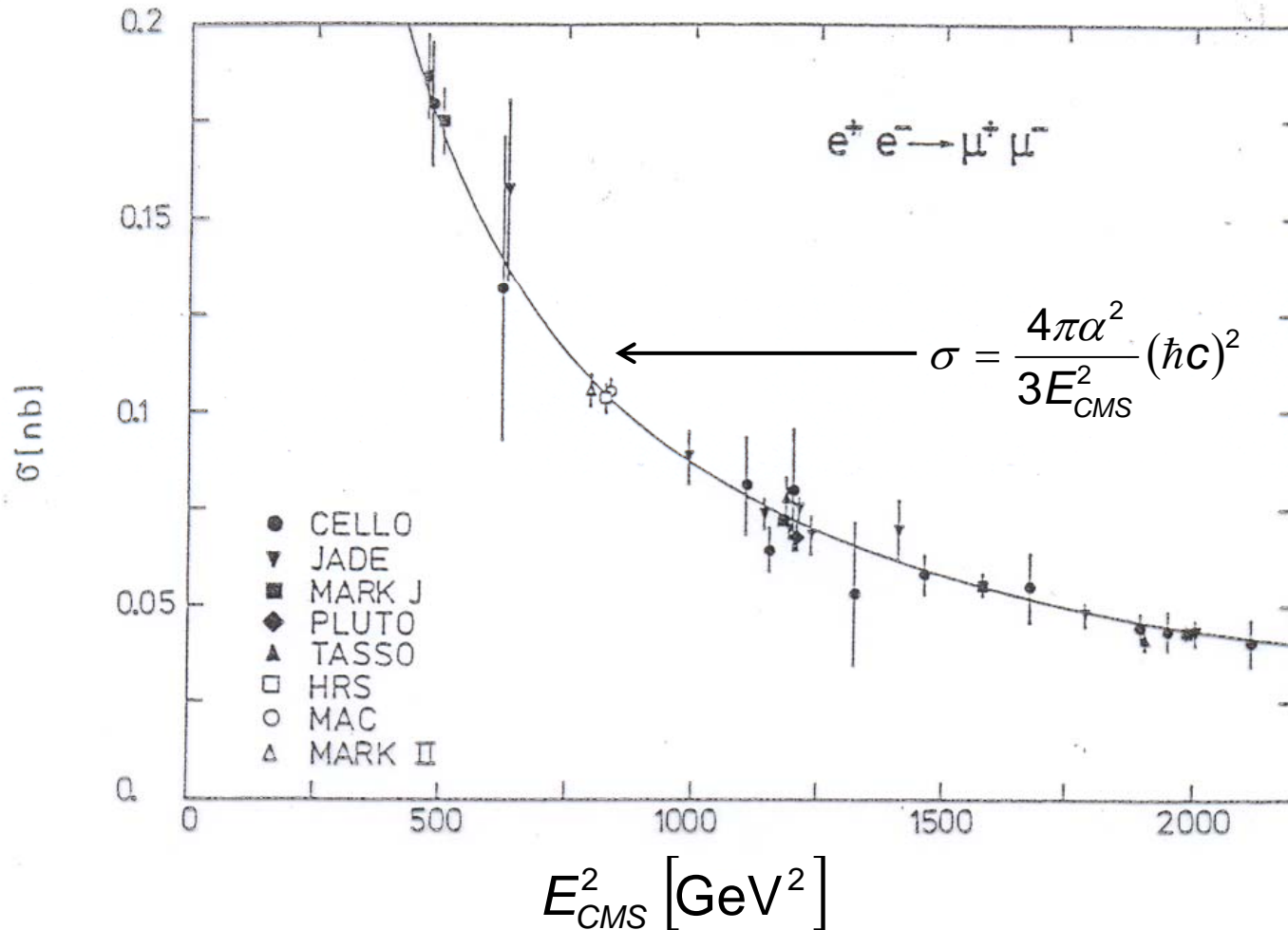


Fig-TP-2.3