

LEPTOQUARKS IN $\gamma\gamma$ -COLLISIONS

J. BLÜMLEIN AND A. KRYUKOV

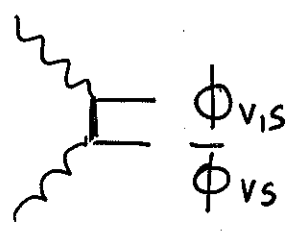
DESY

- 1) INTRODUCTION
- 2) CROSS SECTIONS
- 3) QCD CORRECTION

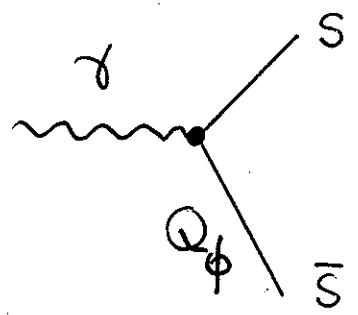
1. INTRODUCTION

WHY LQ'S IN $\gamma\gamma$?

→ CLEAR PAIRPRODUCTION SIGNAL.



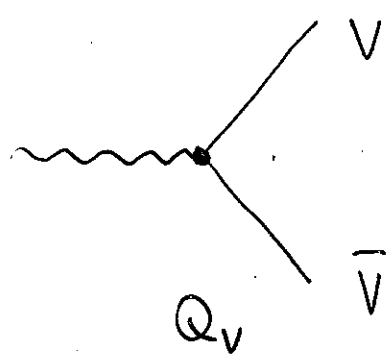
(SCALARS,
VECTORS)



$$\sigma \sim Q_\phi^4$$

$$|Q_\phi| = \frac{1}{3} \dots \frac{5}{3}$$

$$\sigma \leftarrow 1 \dots 625$$



$\left. \begin{matrix} \kappa_\gamma \\ \lambda_\gamma \end{matrix} \right\}$

ANOMALOUS COUPLINGS.

2. CROSS SECTIONS

BORN:

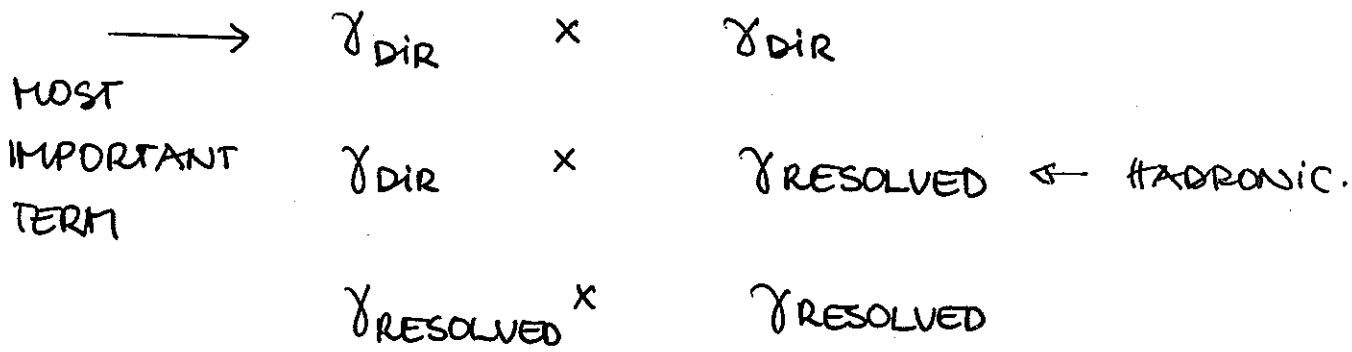
J. BLÜMUEIN, E. BOOS, NUCL. PHYS (P.S.) 37B (1994) 181

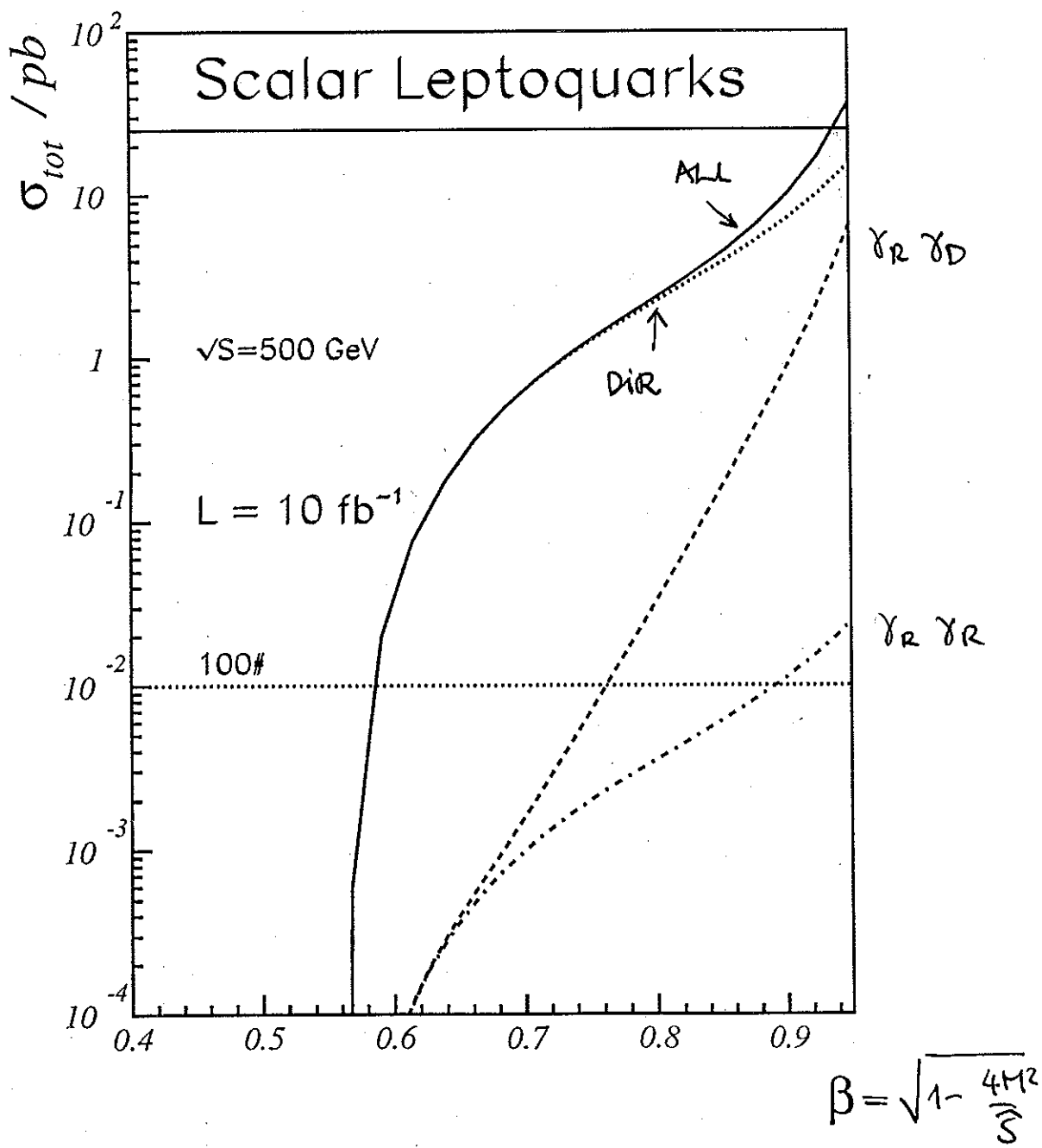
J. BLÜMUEIN, E. BOOS, A. KRYUKOV, Z. PHYS. C76 (1997) 137

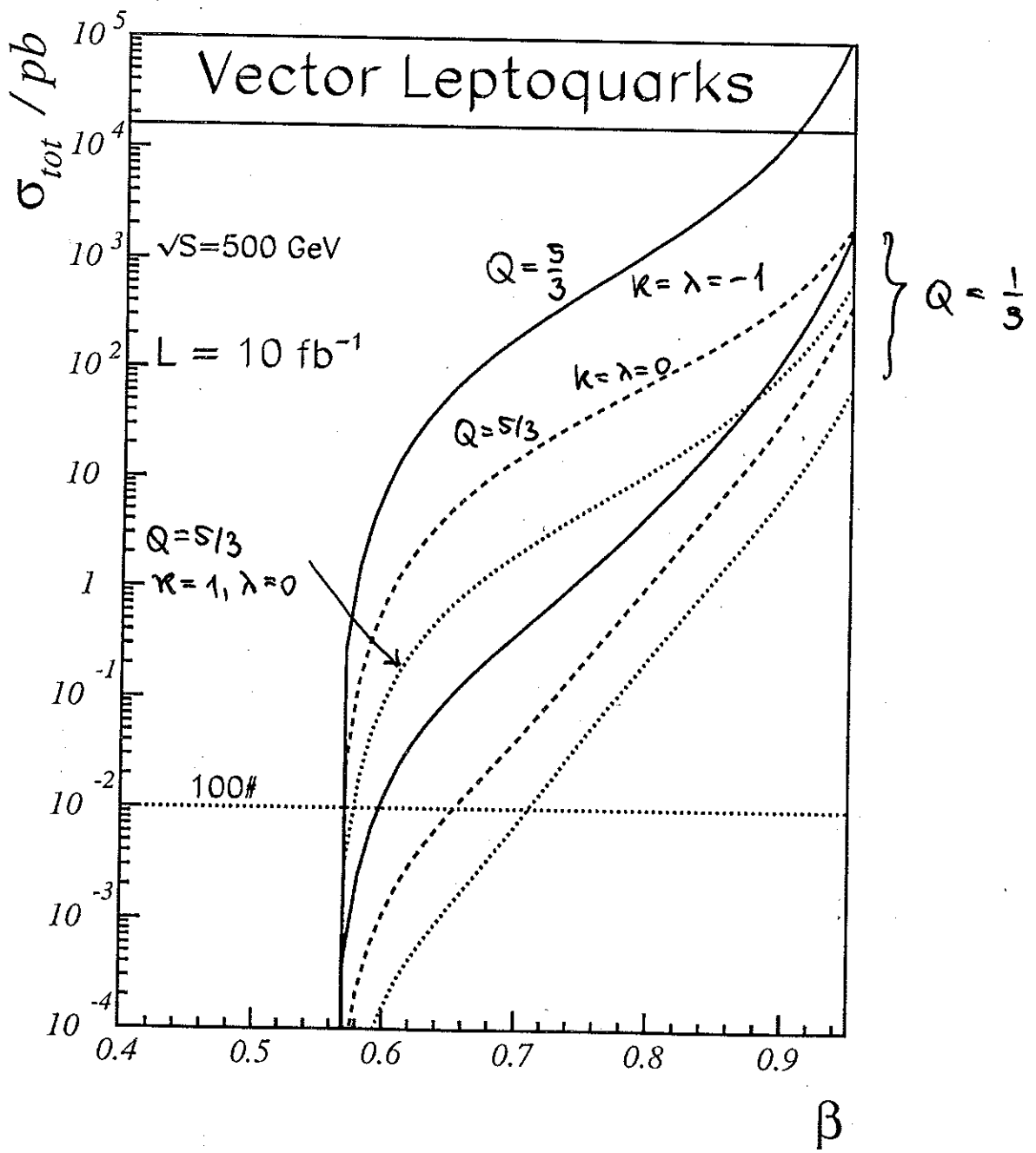
CODE: LQPAIR 1.0 : J. BLÜMUEIN, E. BOOS, A. KRYUKOV
199.

→ CONVOLUT WITH COMPTON LASER SPECTRA

THREE CONTRIBUTIONS:

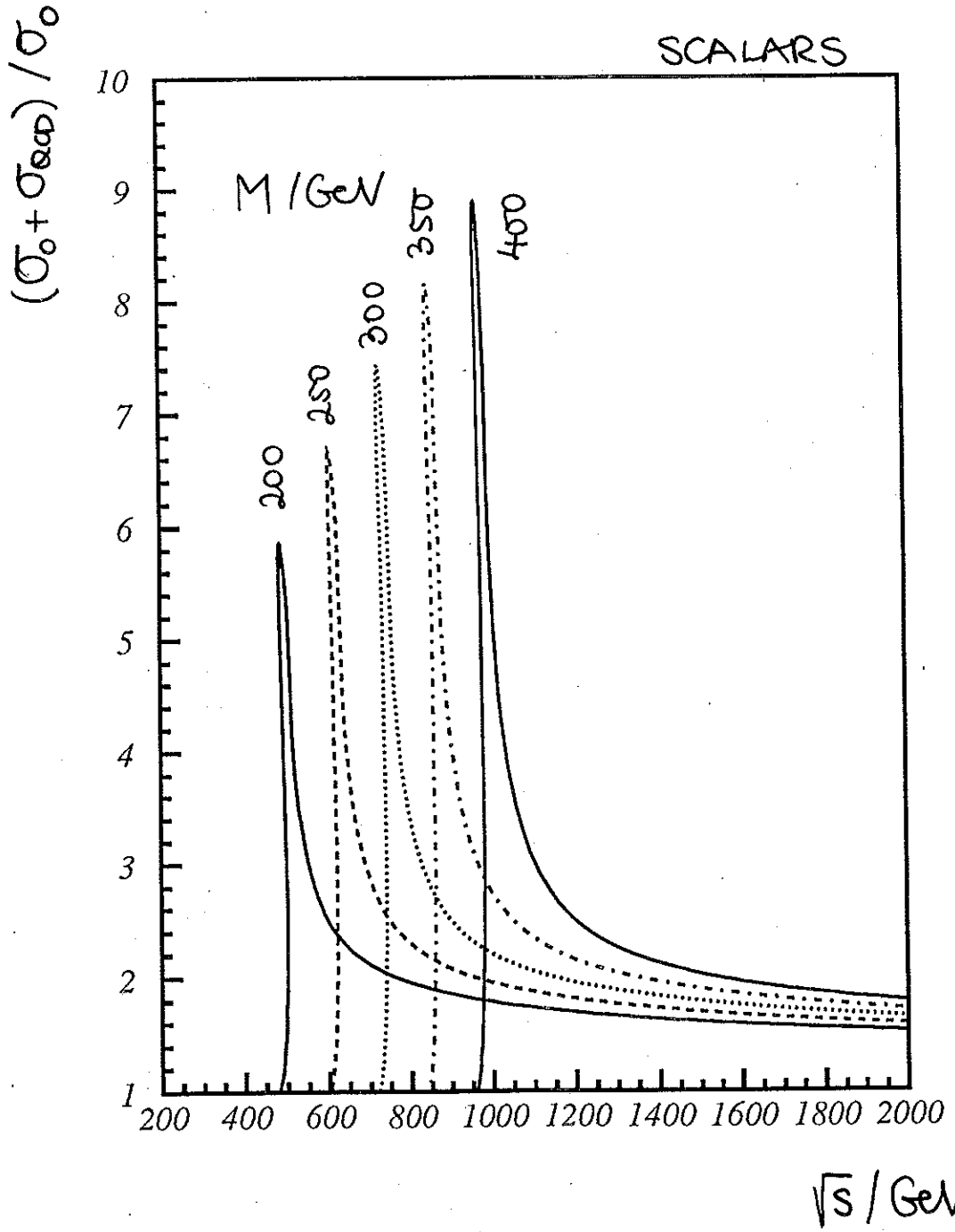






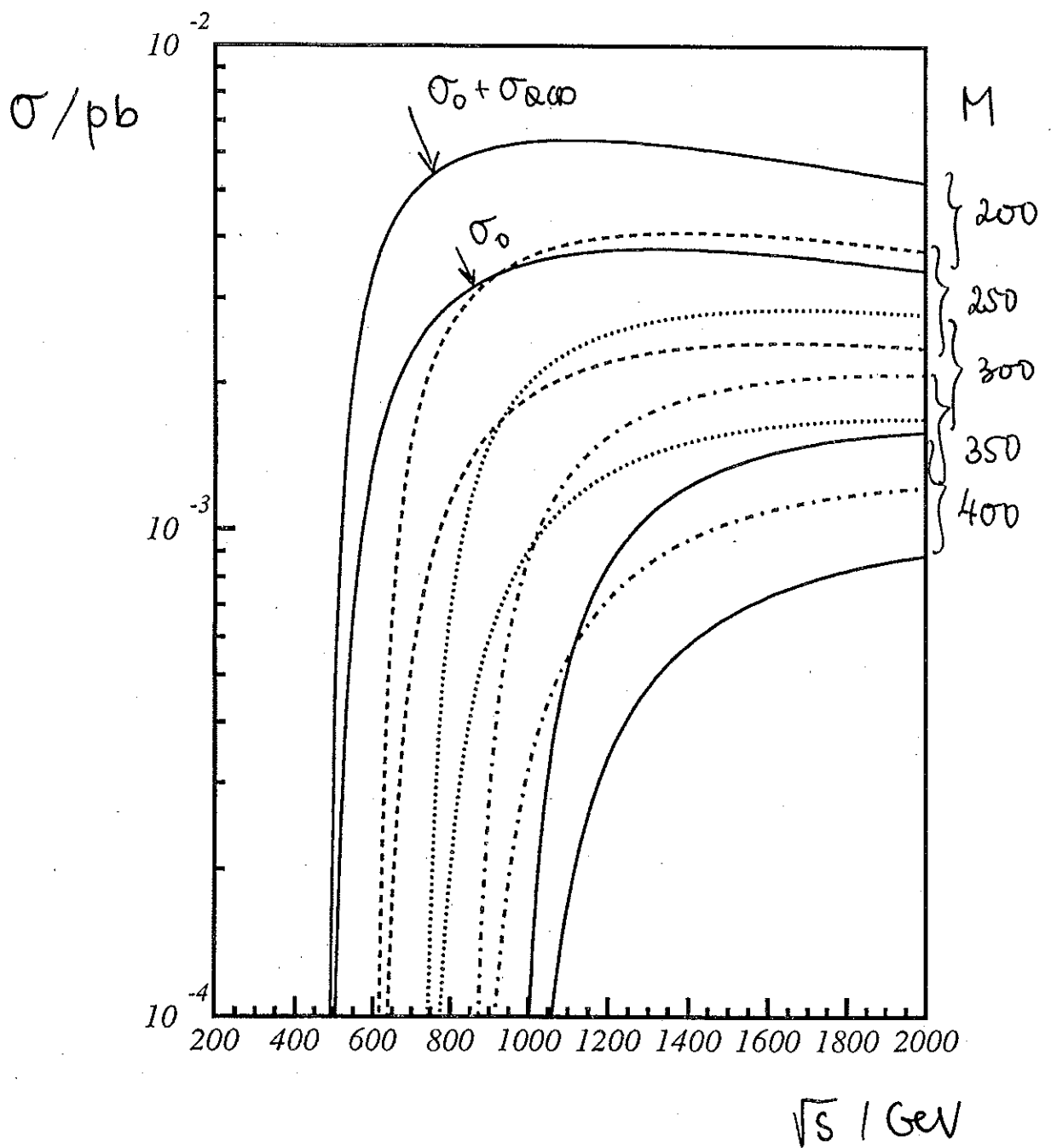
3. QCD CORRECTIONS

(LIT: BIGI, FADIN, KHOZE)



↳ LEPTOQUARKONIUM ?

(JB 193)



- IMPORTANT THRESHOLD FACTOR!
- COULOMB-SINGULARITY