

## V. Conclusion

This paper grew out of the desire to understand  $e^+e^-$  -annihilation- its experimental results as well as the proposed theoretical schemes. It naturally splits up in three parts : presentation of the experimental results, modelling on  $e^+e^- \rightarrow$  hadrons and theoretical explanations of  $\psi$ .

In the second part of this paper we learned about the new results on the total and inclusive cross sections in  $e^+e^-$  annihilation which show no smooth scaling behaviour as expected from single photon QED investigations, but instead exhibit a resonance structure and a rising ratio  $R \equiv \sigma_h/\sigma_\mu$ . Two of these resonances are extremely narrow , whereas a further one is broad. The normalized inclusive distributions change considerably in the large x-region on and off the narrow resonances.

In the third part we presented the scaling arguments. Our main attempt here was to find a common descriptive basis of all proposed models and to draw general conclusions.

There exists a wealth of proposed explanations, investigations and speculations on the  $\psi$ -particles which

we try to cover in the fourth part. Our main aim here is to classify and to group the enormous amount of theoretical ideas. Although many of these schemes are quite attractive we can not escape the impression that we are still far from the correct explanation.