

Introduction

what are we searching for ?

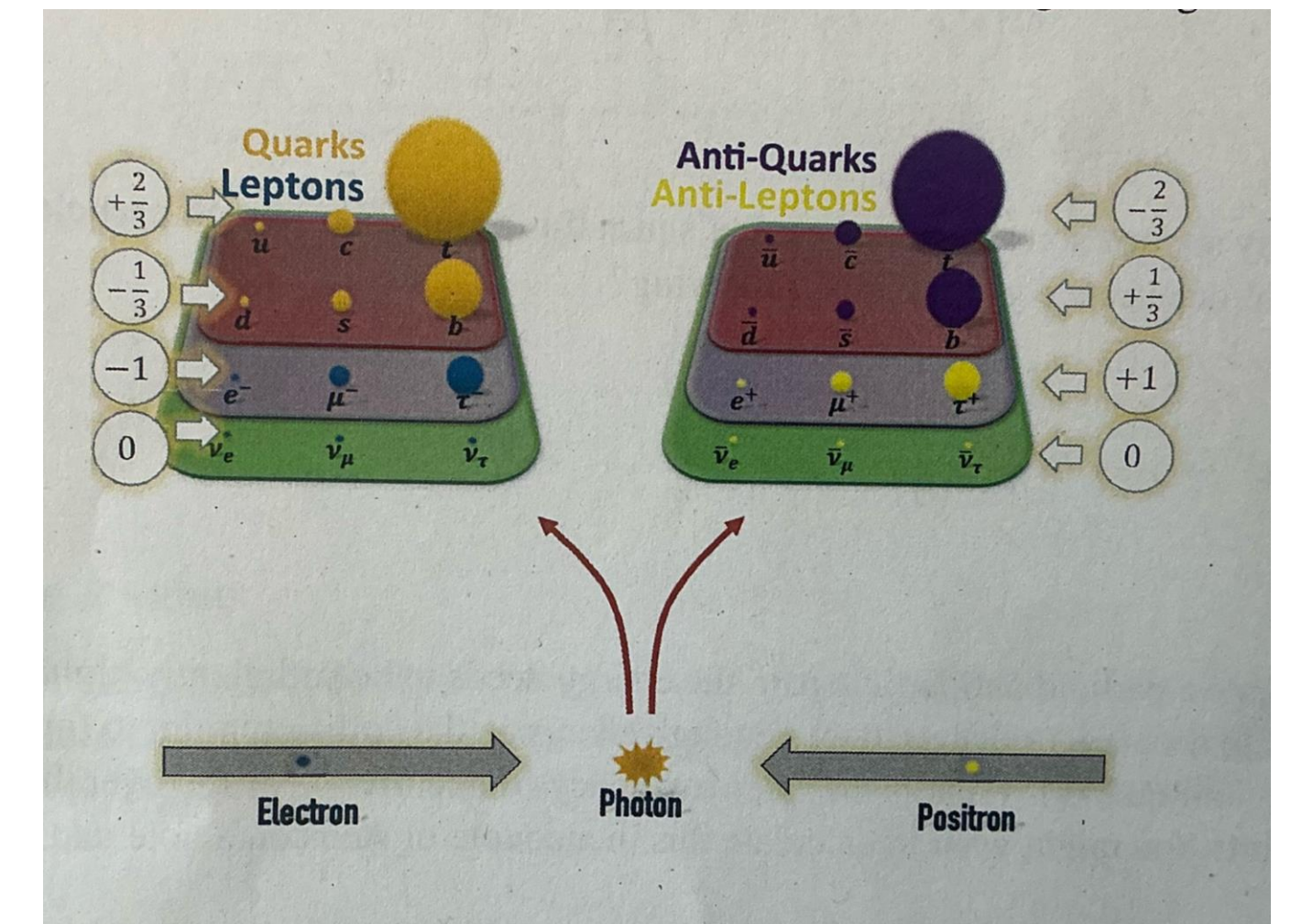
What happens in a e^+e^- collisions

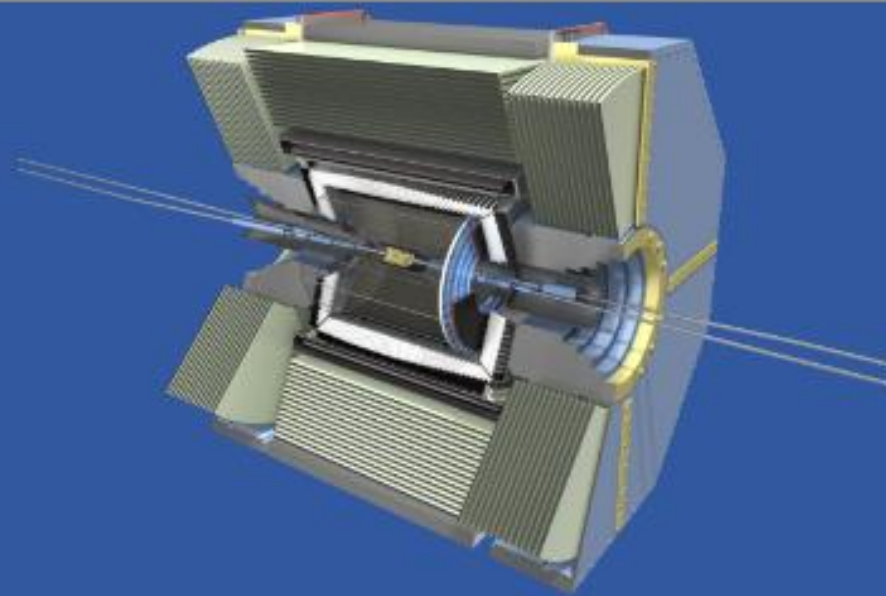
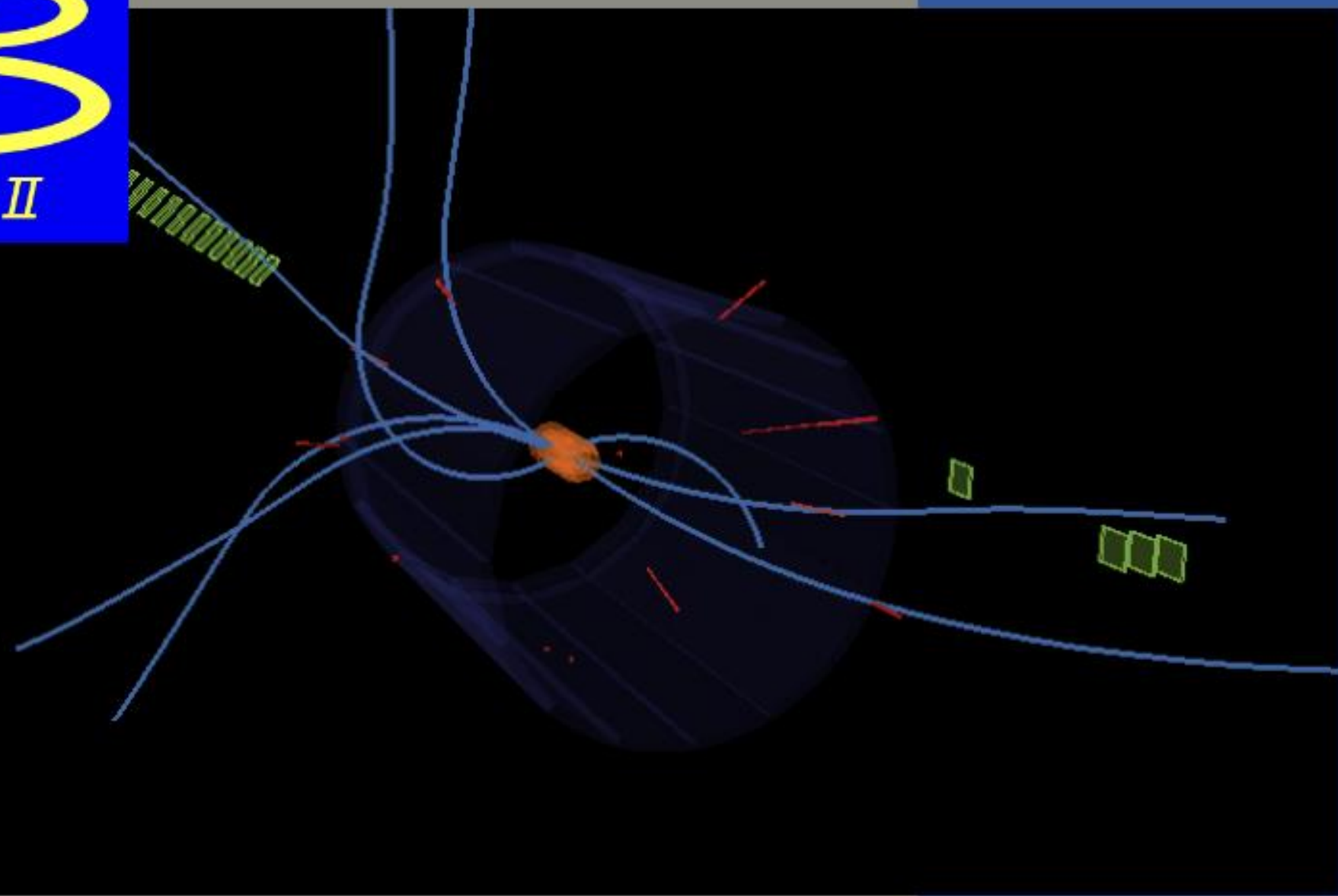
Quark color and the R Value

- Frequency of the occurrence of different particles

- $N(e^+e^- \rightarrow \gamma \rightarrow \bar{u}u/\bar{d}d/\bar{s}s/\bar{c}c) = \frac{10}{9} \times XY$

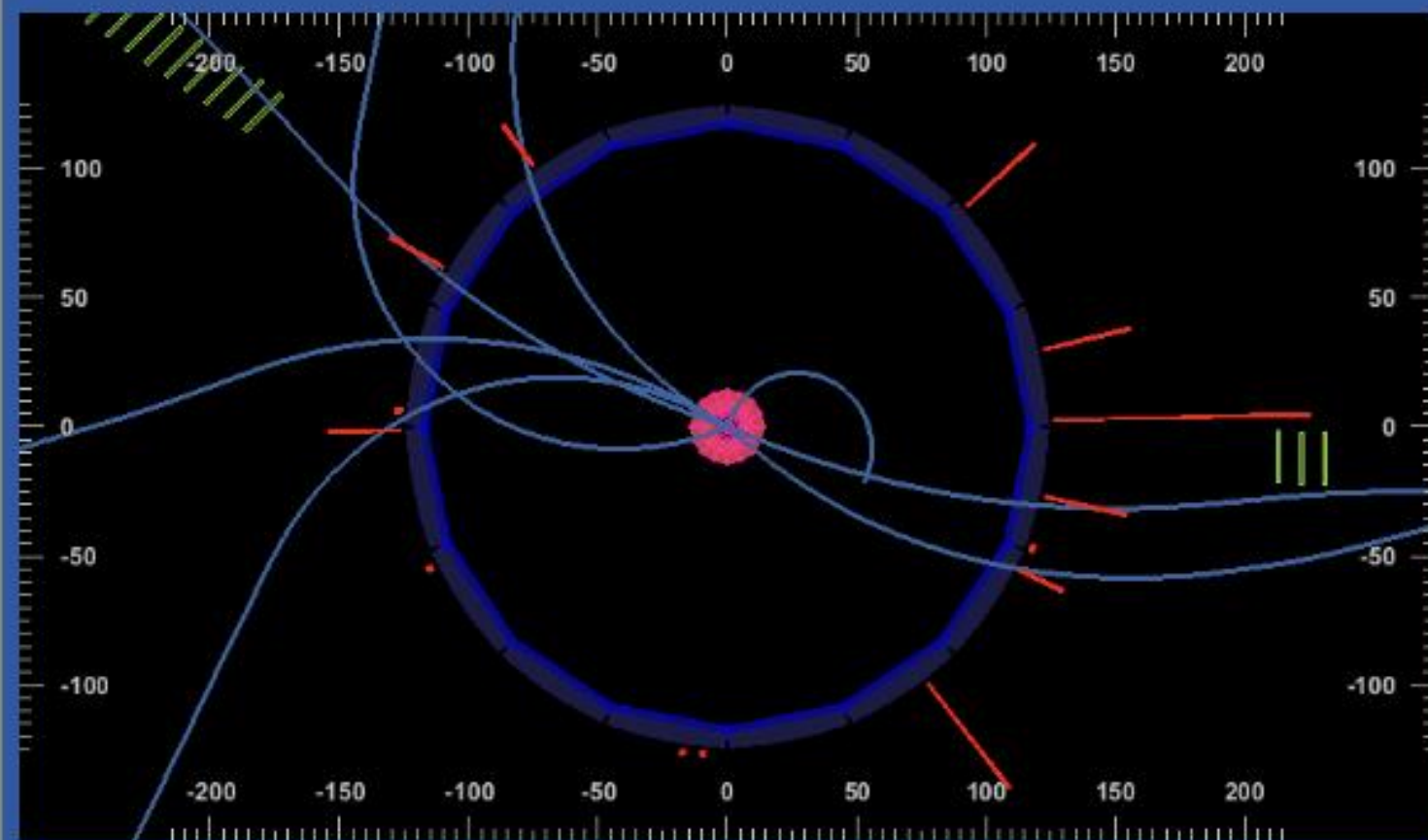
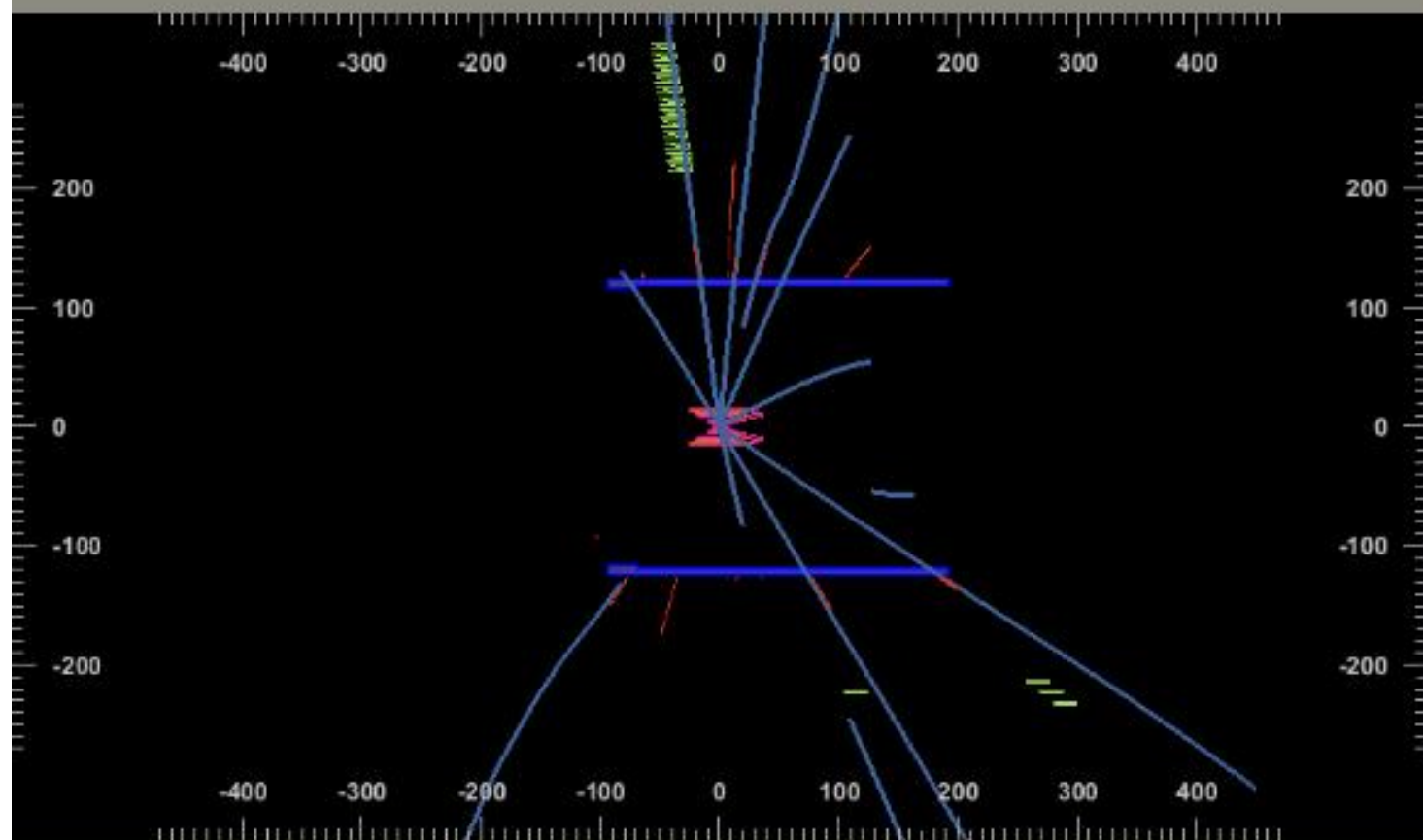
- $R = \frac{N(e^+e^- \rightarrow \gamma \rightarrow \bar{u}u/\bar{d}d/\bar{s}s/\bar{c}c)}{1/2((N(e^+e^- \rightarrow \gamma \rightarrow u^+u^-) + N(e^+e^- \rightarrow \gamma \rightarrow t^+t^-)))}$





Event 31

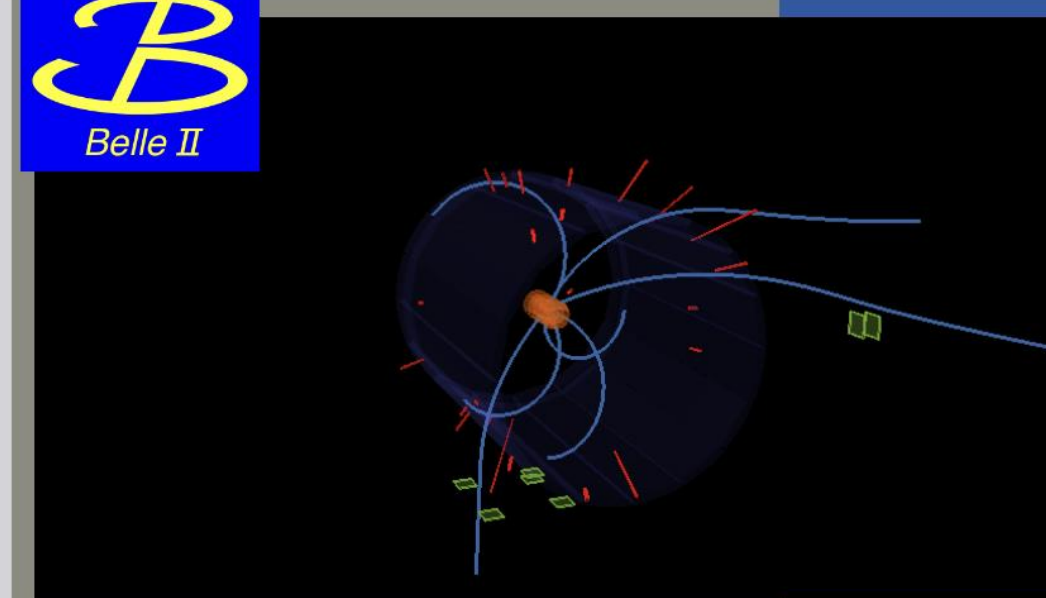
$$\cancel{E} = 0.0$$
$$\swarrow = 0.41$$



Belle II Masterclass: Data set R

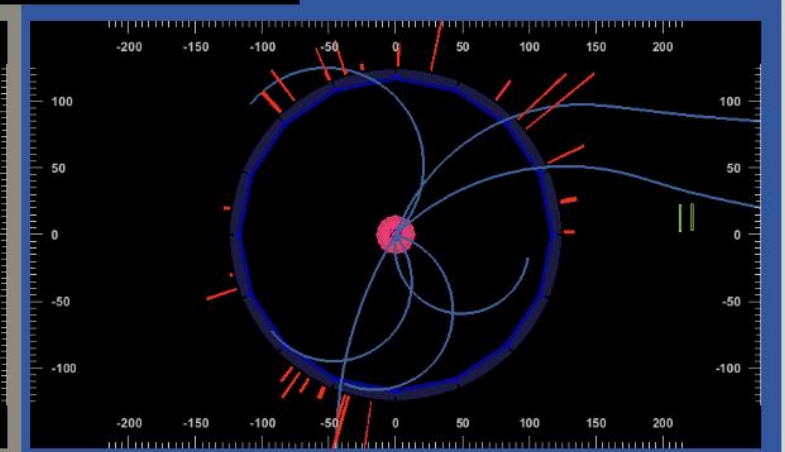
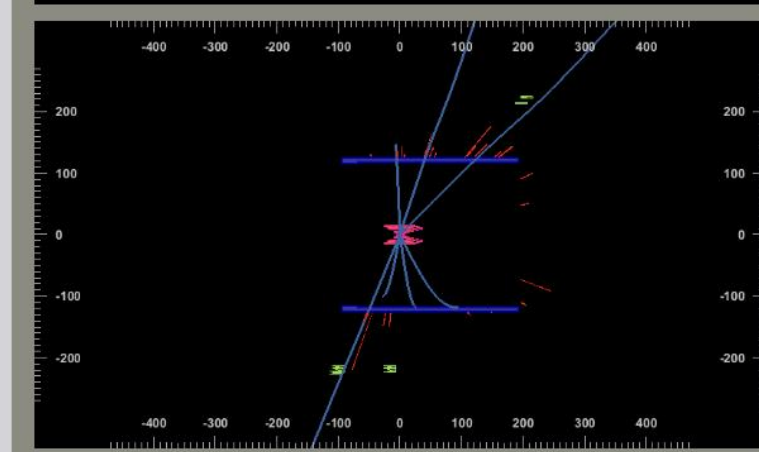
How many colors does a quark come in?

31 / 50



Event 8

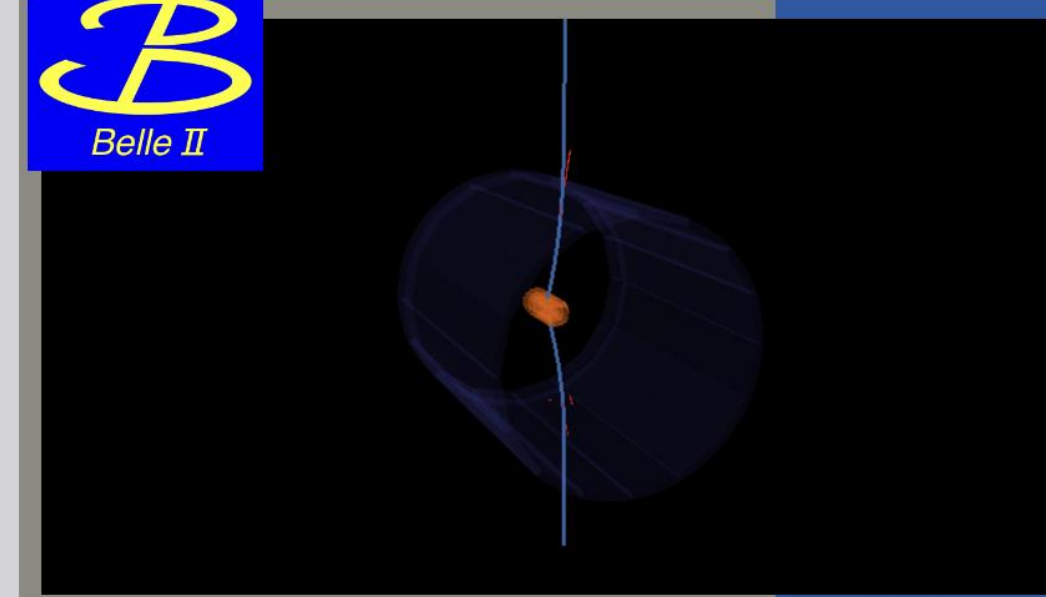
$$\cancel{E} = 2.2$$
$$\swarrow = 0.32$$



Belle II Masterclass: Data set R

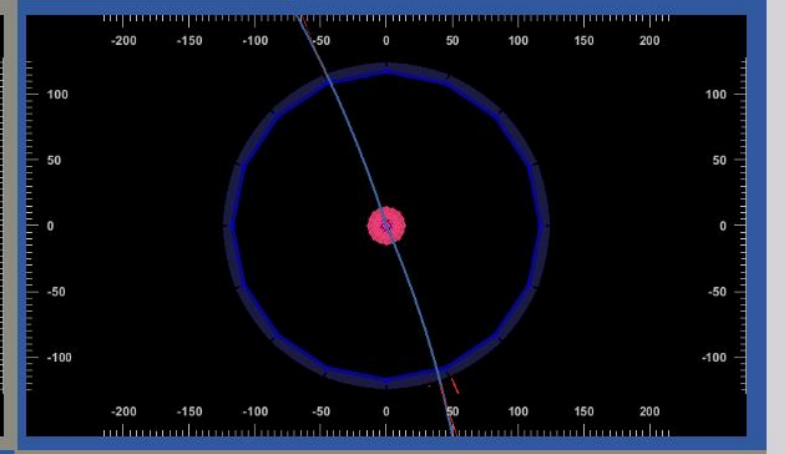
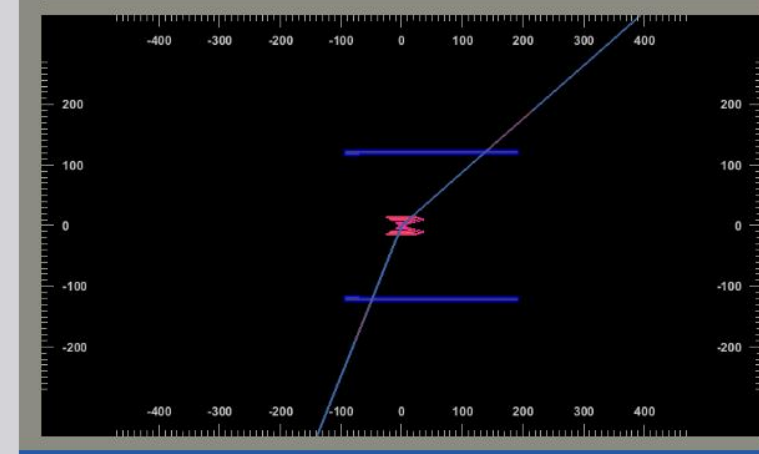
How many colors does a quark come in?

8 / 50



Event 2

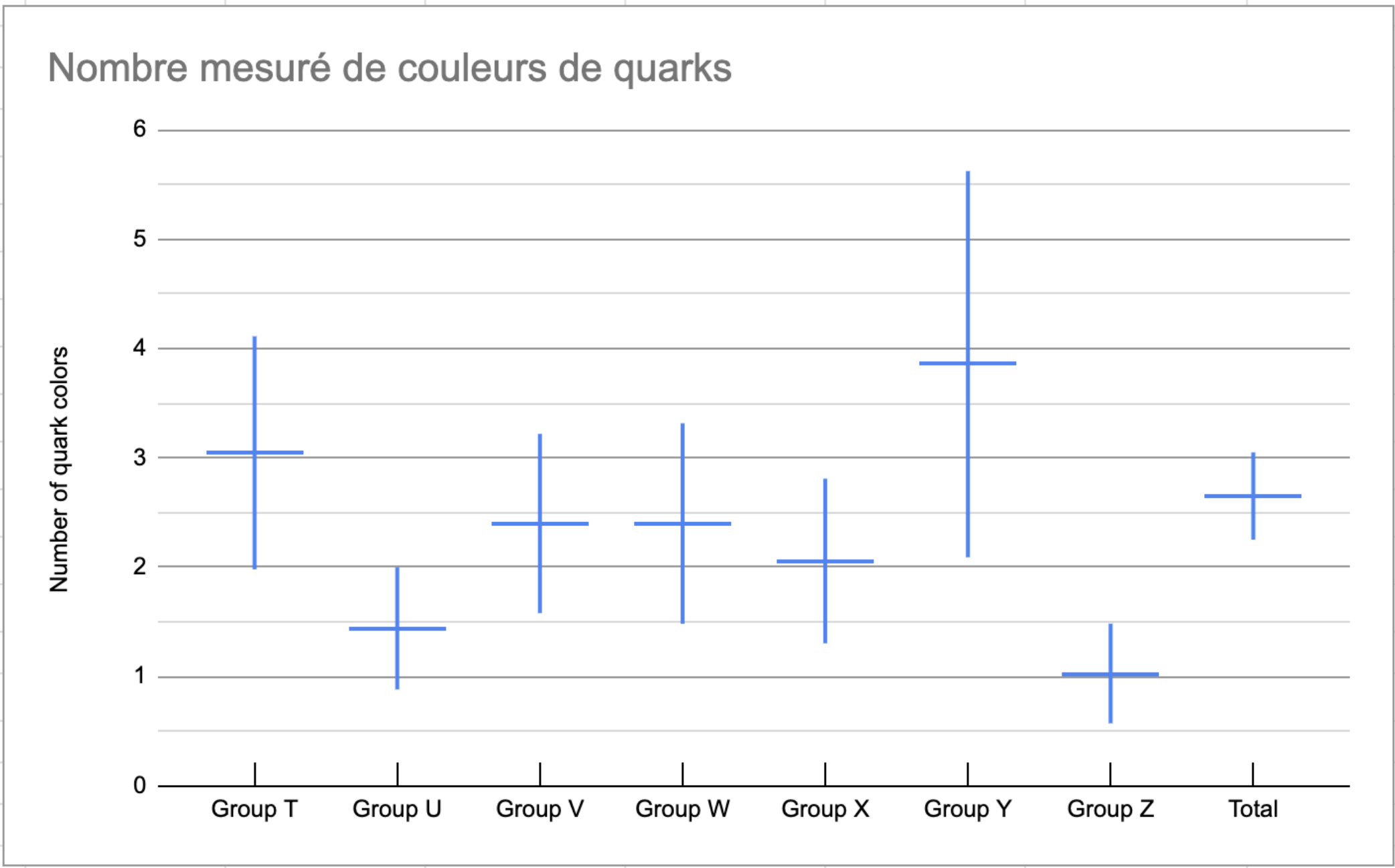
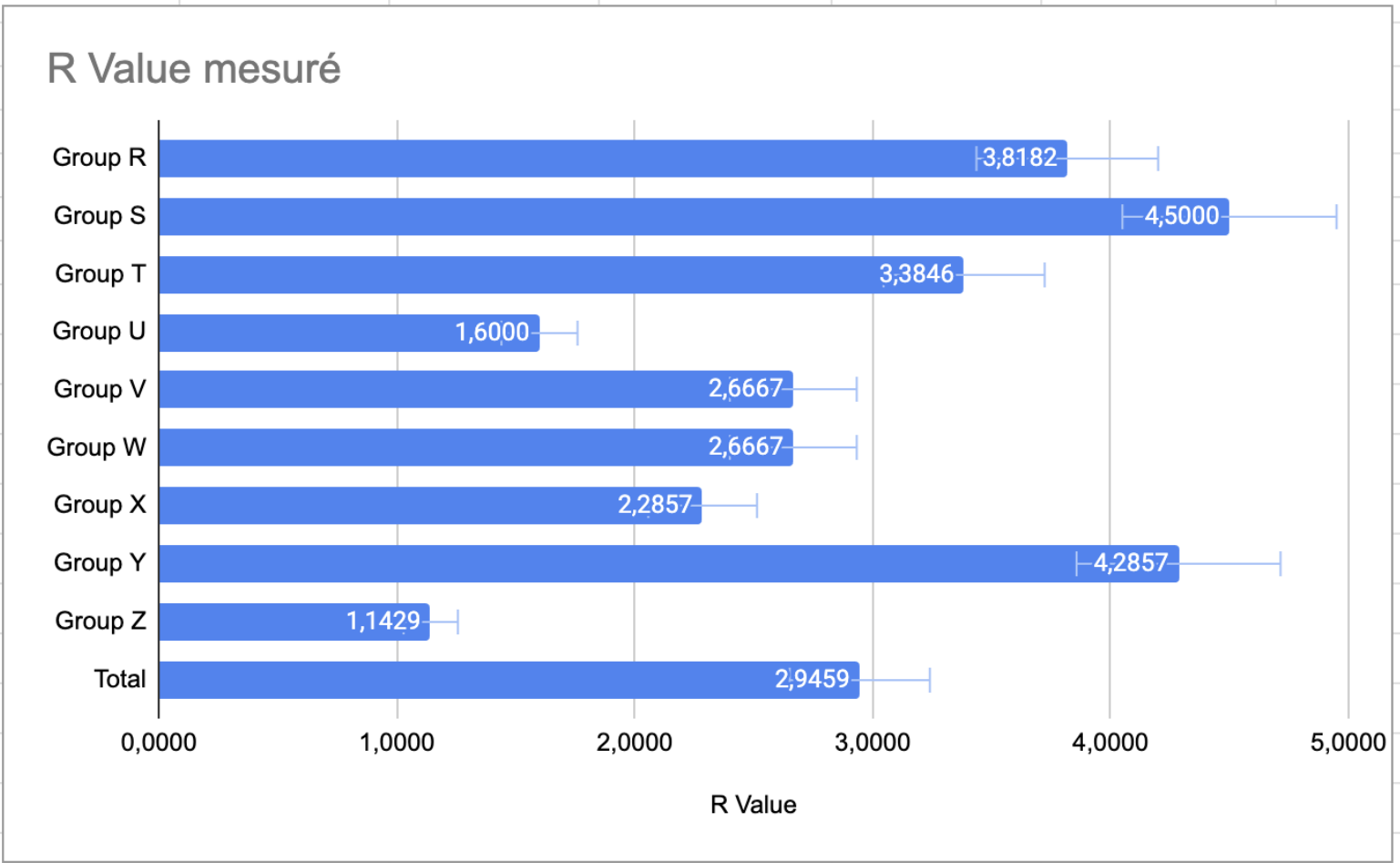
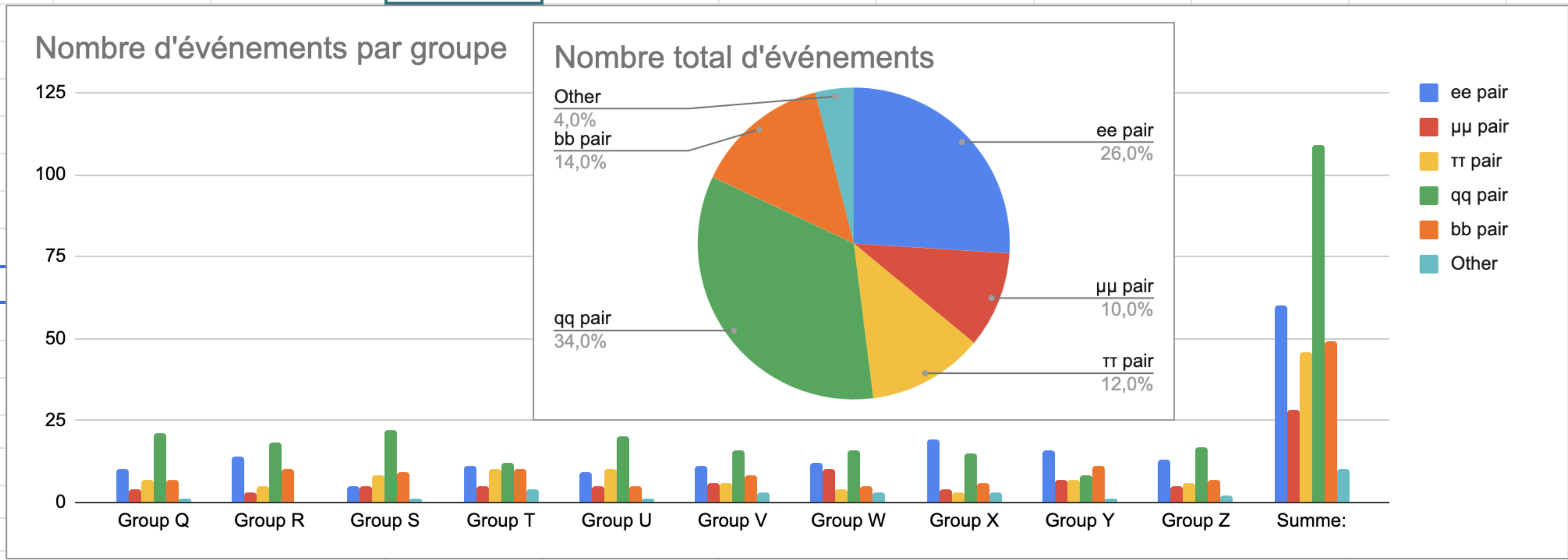
$$\cancel{E} = -0.0$$
$$\swarrow = 1.0$$



Belle II Masterclass: Data set R

How many colors does a quark come in?

2 / 50



Merci beaucoup 🥖 🍷