

Escuela de Verano  
La física de lo más pequeño: El modelo estándar  
Tutor: Felipe Keim

Quarks y Antiquarks

| Nombre       | Símbolo   | Spin          | Carga           | Número bariónico | Strangeness | Charm | Botomness | Topness |
|--------------|-----------|---------------|-----------------|------------------|-------------|-------|-----------|---------|
| Up           | u         | $\frac{1}{2}$ | $+\frac{2}{3}e$ | $\frac{1}{3}$    | 0           | 0     | 0         | 0       |
| Down         | d         | $\frac{1}{2}$ | $-\frac{1}{3}e$ | $\frac{1}{3}$    | 0           | 0     | 0         | 0       |
| Strange      | s         | $\frac{1}{2}$ | $-\frac{1}{3}e$ | $\frac{1}{3}$    | -1          | 0     | 0         | 0       |
| Charm        | c         | $\frac{1}{2}$ | $+\frac{2}{3}e$ | $\frac{1}{3}$    | 0           | +1    | 0         | 0       |
| Bottom       | b         | $\frac{1}{2}$ | $-\frac{1}{3}e$ | $\frac{1}{3}$    | 0           | 0     | +1        | 0       |
| Top          | t         | $\frac{1}{2}$ | $+\frac{2}{3}e$ | $\frac{1}{3}$    | 0           | 0     | 0         | +1      |
| Anti-Up      | $\bar{u}$ | $\frac{1}{2}$ | $-\frac{2}{3}e$ | $-\frac{1}{3}$   | 0           | 0     | 0         | 0       |
| Anti-Down    | $\bar{d}$ | $\frac{1}{2}$ | $+\frac{1}{3}e$ | $-\frac{1}{3}$   | 0           | 0     | 0         | 0       |
| Anti-Strange | $\bar{s}$ | $\frac{1}{2}$ | $+\frac{1}{3}e$ | $-\frac{1}{3}$   | +1          | 0     | 0         | 0       |
| Anti-Charm   | $\bar{c}$ | $\frac{1}{2}$ | $-\frac{2}{3}e$ | $-\frac{1}{3}$   | 0           | -1    | 0         | 0       |
| Anti-Bottom  | $\bar{b}$ | $\frac{1}{2}$ | $+\frac{1}{3}e$ | $-\frac{1}{3}$   | 0           | 0     | -1        | 0       |
| Anti-Top     | $\bar{t}$ | $\frac{1}{2}$ | $-\frac{2}{3}e$ | $-\frac{1}{3}$   | 0           | 0     | 0         | -1      |