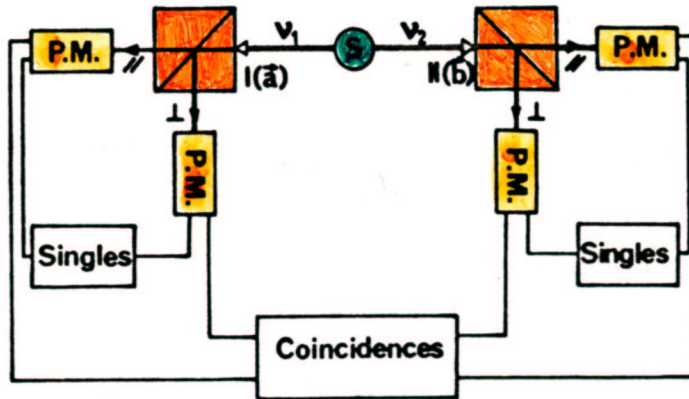
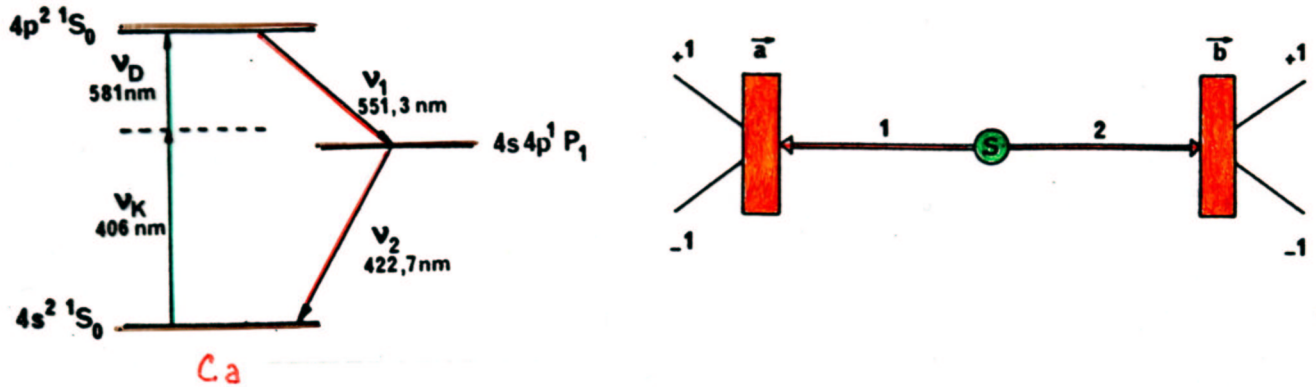


# Violazione delle disuguaglianze di Bell

A. Aspect, P. Grangier, G. Roger:  
 Phys. Rev. Lett. **49** (1982) 91-94



$$E(\hat{a}, \hat{b}) = P_{++}(\hat{a}, \hat{b}) + P_{--}(\hat{a}, \hat{b}) - P_{+-}(\hat{a}, \hat{b}) - P_{-+}(\hat{a}, \hat{b})$$

$$S = E(\hat{a}, \hat{b}) - E(\hat{a}, \hat{b}') + E(\hat{a}', \hat{b}) + E(\hat{a}', \hat{b}')$$

$$(\hat{a}, \hat{b}) = (\hat{b}, \hat{a}') = (\hat{a}', \hat{b}') = 22.5^\circ, \quad (\hat{a}, \hat{b}') = 67.5^\circ$$

$$\text{Bell: } -2 \leq S \leq 2$$

$$S_{\text{exp}} = 2.697 \pm 0.015 \quad \leftrightarrow \quad S_{\text{QM}} = 2.70 \pm 0.05$$