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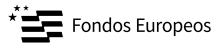
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# Low-lying spectroscopy of 200

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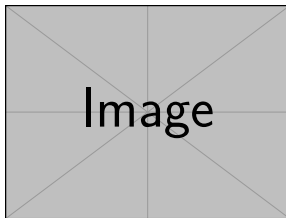
# A recap on spectroscopic factors

**Spectroscopic factors** shed light on the occupancy of single-particle states:

$$\left. \frac{d\sigma}{d\Omega} \right|_{\text{exp}} = C^2 S \cdot \left. \frac{d\sigma}{d\Omega} \right|_{\text{s.p.}}, \quad \sum C^2 S = (2j + 1) \text{ in IPSM}$$

**Experimentally:**  
Reduction of  $\sim 65\%$ !

- **Short-range** correlations: tensor forces,...
- **Long-range:** vibrations, giant resonances,...



*L. Lapikás, Nuclear Phys. A 553 (1993)*