

Title

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This is a user guide for OB Two.

Introduction

$$\langle m_{A1} m_{A2} | x'_A x'_B | m_{B1} m_{B2} \rangle = \langle m_{A1} | x'_A | m_{A2} \rangle \langle m_{B1} | x'_B | m_{B2} \rangle \quad (1)$$

$$(2)$$

$$\langle m_{A1} | x'_A | m_{A2} \rangle = \frac{1}{2} [\langle sm_{A1} | x'_A | sm_{A2} \rangle + (-1)^{m_{A2}-\frac{1}{2}} \langle sm_{A1} | x'_A | pm_{A2} \rangle e^{-i\omega t} + \quad (3)$$

$$(-1)^{m_{A1}-\frac{1}{2}} \langle pm_{A1} | x'_A | sm_{A2} \rangle e^{i\omega t} + (-1)^{m_{A1}+m_{A2}-1} \langle pm_{A1} | x'_A | pm_{A2} \rangle] \quad (4)$$

$$\frac{1}{4} [(-1)^{m_{A2}+m_{B2}-1} \langle s_{A1} | x'_A | p_{A2} \rangle \langle s_{B1} | x'_B | p_{B2} \rangle e^{-2i\omega t} + \quad (5)$$

$$(-1)^{m_{A2}+m_{B1}-1} \langle s_{A1} | x'_A | p_{A2} \rangle \langle p_{B1} | x'_B | s_{B2} \rangle + \quad (6)$$

$$(-1)^{m_{A1}+m_{B2}-1} \langle p_{A1} | x'_A | s_{A2} \rangle \langle s_{B1} | x'_B | p_{B2} \rangle + \quad (7)$$

$$(-1)^{m_{A1}+m_{B1}-1} \langle p_{A1} | x'_A | s_{A2} \rangle \langle p_{B1} | x'_B | s_{B2} \rangle e^{2i\omega t}] \quad (8)$$

$$P_2 = (1 + 3 \cos 2\gamma) / 4 \quad (9)$$