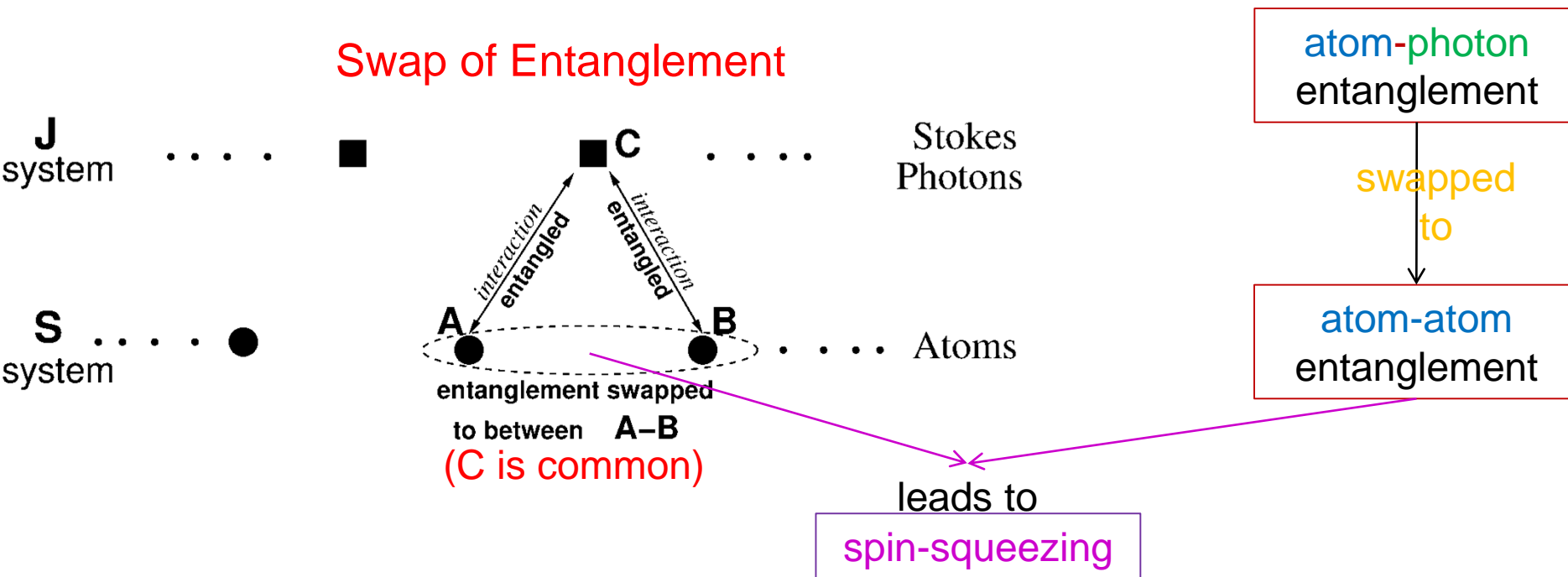


New Method for spin-squeezing (single interaction!)



$$\hat{H} = \hat{S}_+ \hat{J}_+ + \hat{S}_- \hat{J}_- \xrightarrow[\text{as}]{\text{behaves}} \hat{H} = \hat{S}_z^2 \longrightarrow [1]$$

$$\text{idea of entanglement swap} \longrightarrow [2]$$

[1] M.E. Taşgın and P. Meystre, “Spin squeezing with coherent light via entanglement swapping” Phys. Rev. A **83**, 053848 (2011).

[2] M.E. Taşgın, M.Ö. Oktel, L. You, and Ö.E. Müstecaplıoğlu, Phys. Rev. A **79**, 053603 (2009).