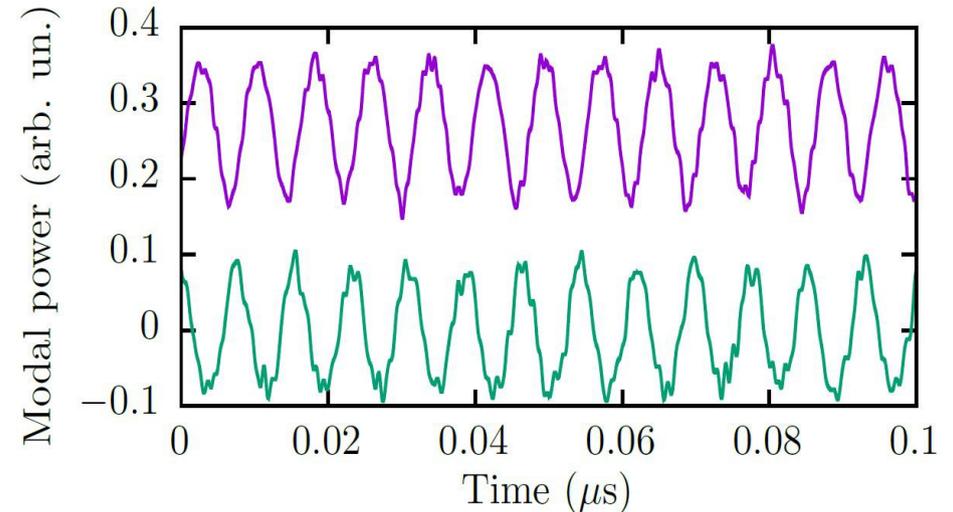
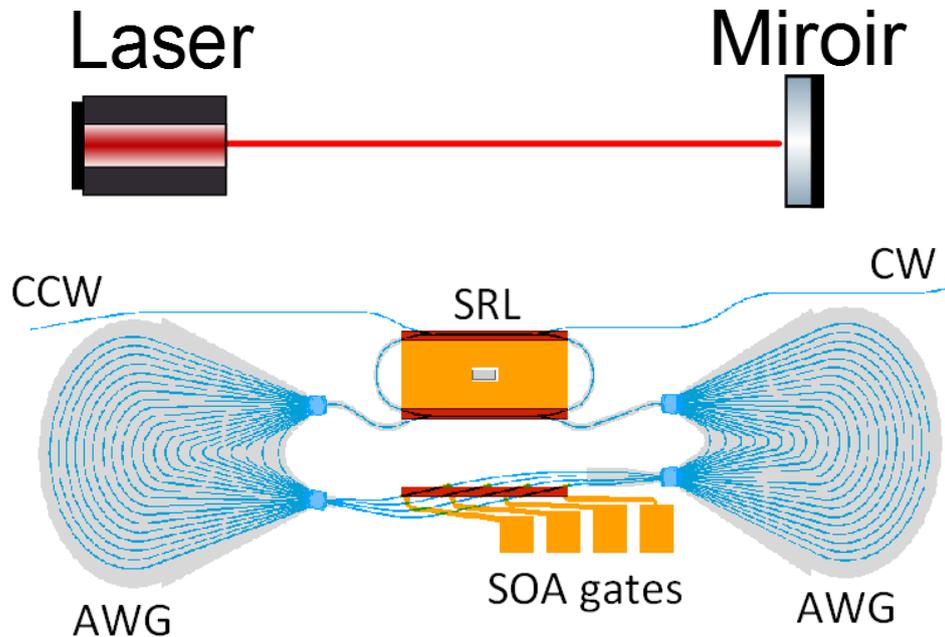


# Ponts de bifurcation dans un laser en anneau soumis à un feedback optique

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$$\begin{aligned} \frac{dE_{cw}}{dt} &= (1 + i\alpha) [NG_{cw} - 1] E_{cw} - (k_d + ik_c) E_{ccw} + \eta E_{cw}(t - \tau) e^{i\theta}, \\ \frac{dE_{ccw}}{dt} &= (1 + i\alpha) [NG_{ccw} - 1] E_{ccw} - (k_d + ik_c) E_{cw} + \eta E_{ccw}(t - \tau) e^{i\theta}, \\ \frac{dN}{dt} &= \gamma \left[ \mu - N - NG_{cw} |E_{cw}|^2 - NG_{ccw} |E_{ccw}|^2 \right]. \end{aligned}$$