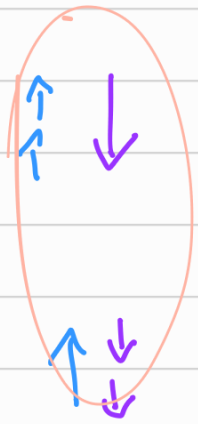


TODO:

- Admin: send risk assessment
- Understand coupled eqns

Coupled eqns



not symmetric
processes

$$\frac{dy}{dx} = f(y, x)$$

$$\vec{y} = \begin{bmatrix} L \\ S \end{bmatrix}$$

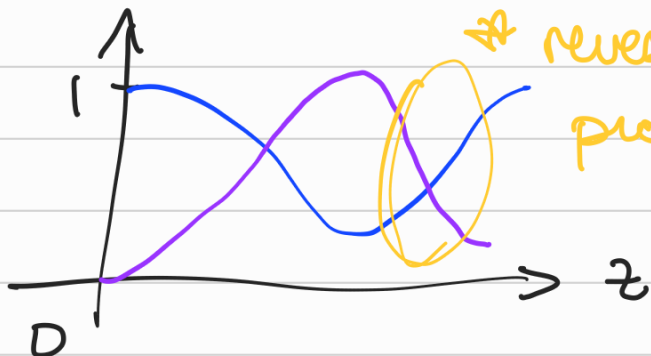
$$\vec{f} = \begin{bmatrix} i\delta L^2 \\ i\delta \frac{L^* S}{2} \end{bmatrix}$$

ex

$$L(z=0) = 1$$

$$S(z=0) = 0$$

Laser intensities
Second Harmonics



e^{-iABz}
 e^{iABz}
ignore if we set laser to const amplitude

Laser

Second Harmonics

$$\partial_z S =$$

$$(i)\delta L^2$$

unsure about the i

$$\partial_z L =$$

$$(i)\delta \frac{L^* S}{2}$$

1st GDA: Solve Coupled eqns: TIP

1. **ODE**: solve coupled eqs - **LV**

Runge-Kutta : **ode45** - matlab method to solve these eq^s

