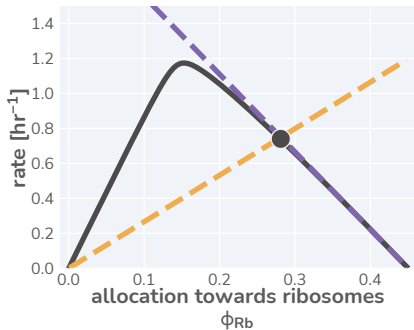


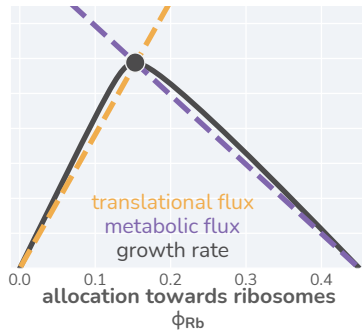
# tRNA balance too low

ppGpp **decreases**  $\phi_{Rb} \rightarrow$  fluxes **increase**  
 ppGpp **increases**  $\phi_{Rb} \rightarrow$  fluxes **decrease**



# tRNA balance at optimum

ppGpp **decreases**  $\phi_{Rb} \rightarrow$  fluxes **decrease**  
 ppGpp **increases**  $\phi_{Rb} \rightarrow$  fluxes **decrease**



# tRNA balance too high

ppGpp **decreases**  $\phi_{Rb} \rightarrow$  fluxes **decrease**  
 ppGpp **increases**  $\phi_{Rb} \rightarrow$  fluxes **increase**

