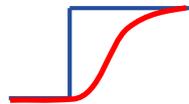


Optimizing PEM controlled processes

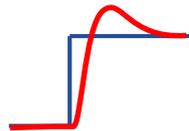
PDF feedback loop

- PDF = Pseudo-Derivative Feedback
- Two parameters “Gain” and “integration time”, usually “Gain” > “integration time”
- General tuning strategies:

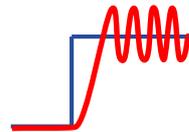
Problem



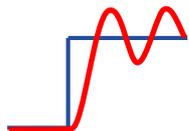
too slow



overshoot

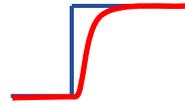


fast oscillations

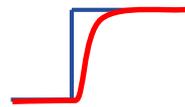


slow oscillations

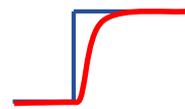
Solution



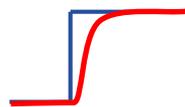
increase “Gain” and/or decrease “integration time”



decrease “Gain” (and/or “integration time”)



decrease “Gain” (absolute or relative to “integration time”)



decrease “integration time” (absolute or relative to “Gain”)