

CS341 SYSTEMS BIOLOGY I

HOMEWORK ASSIGNMENT #10 – READING (THURS NOV 9, 2017)

1. READING

The goal of this reading assignment is to begin to think about how a modeler finds parameter values.

Read “A detailed predictive model of the mammalian circadian clock” by Forger & Peskin, PNAS, 2003 (emailed by Stephanie)

- (1) What makes this model different from that of Leloup and Goldbeter’s 2003 paper?
- (2) Explain what it means to “fit” the model to data.
- (3) Explain the parameter sensitivity measure they compute.
- (4) In what sense is their model “robust”?