

Suggested further readings

☰ Contents

[Overview](#)

[Foundations](#)

[Control as Inference](#)

[Intro](#)

[Outro](#)

Print to PDF ►

Overview

Bertsekas DP (1995). Dynamic programming and optimal control . (Vol. 1, No. 2, p. 4). Belmont, MA: Athena scientific.

Foundations

Bellman, Richard (1957). Dynamic Programming.

Kalman, R. E. (1960). Contributions to the theory of optimal control. Bol. soc. mat. mexicana , 5(2), 102-119.

Charnov, E. L. (1976). Optimal foraging, the marginal value theorem.

Doyle, J. C. (1978). Guaranteed margins for LQG regulators. IEEE Transactions on automatic Control, 23(4), 756-757. (Abstract is definitely worth reading.)

Control as Inference

Todorov E (2009). Efficient computation of optimal actions. Proceedings of the national academy of sciences . 106(28):11478-83.

Kappen HJ, Gmez V, Opper M (2012). Optimal control as a graphical model inference problem. Machine learning . 87(2):159-82.

Intro

Smith, M. A., Brandt, J., & Shadmehr, R. (2000). Motor disorder in Huntington's disease begins as a dysfunction in error feedback control. Nature , 403(6769), 544-549.

Castro, L. N. G., Hadjiosif, A. M., Hemphill, M. A., & Smith, M. A. (2014). Environmental consistency determines the rate of motor adaptation. Current Biology , 24(10), 1050-1061.

Sing, G. C., Joiner, W. M., Nanayakkara, T., Brayanov, J. B., & Smith, M. A. (2009). Primitives for motor adaptation reflect correlated neural tuning to position and velocity. Neuron , 64(4), 575-589.

Wagner, M. J., & Smith, M. A. (2008). Shared internal models for feedforward and feedback control. Journal of Neuroscience , 28(42), 10663-10673.

Outro

Shadmehr and Ahmed (2020). Vigor: Neuroeconomics of movement control . MIT Press.

Bautista LM, Tinbergen J, Kacelnik A (2001) To walk or to fly? How birds choose among foraging modes. Proc Natl Acad Sci USA 98:1089-1094.

Ralston HJ (1958) Energy-speed relation and optimal speed during level walking. Int Z Angew Physiol 17:277-283.

Xu-Wilson M, Zee DS, Shadmehr R (2009) The intrinsic value of visual information affects saccade velocities. Exp Brain Res 196:475-481.

Yoon T, Geary RB, Ahmed AA, Shadmehr R (2018) Control of movement vigor and decision making during foraging. Proc Natl Acad Sci USA 115:E10476-E10485.

Yoon T, Jaleel A, Ahmed AA, Shadmehr R (2020) Saccade vigor and the subjective economic value of visual stimuli. J Neurophysiol 123:2161-2172.