

References

- [1] ADLER, F. R., AND KOTAR, M. Departure time versus departure rate: how to forage optimally when you are stupid. *Evolutionary Ecology Research* 1, 4 (1999), 411–421.
- [2] ARMSTRONG, R. A., AND MCGEHEE, R. Competitive exclusion. *American Naturalist* (1980), 151–170.
- [3] BECSKEI, A., AND SERRANO, L. Engineering stability in gene networks by autoregulation. *Nature* 405, 6786 (2000), 590–593.
- [4] BLOCK, H. The perceptron: A model for brain functioning. i. *Reviews of Modern Physics* 34, 1 (1962), 123.
- [5] BRESSLOFF, P. C., COWAN, J. D., GOLUBITSKY, M., THOMAS, P. J., AND WIENER, M. C. Geometric visual hallucinations, euclidean symmetry and the functional architecture of striate cortex. *Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences* 356, 1407 (2001), 299–330.
- [6] BRIGGS, G. E., AND HALDANE, J. B. S. A note on the kinetics of enzyme action. *Biochemical journal* 19, 2 (1925), 338.
- [7] CHARNOV, E. L. Optimal foraging, the marginal value theorem. *Theoretical population biology* 9, 2 (1976), 129–136.
- [8] CHOW, C. C., AND COLLINS, J. J. Pinned polymer model of posture control. *Physical Review E* 52, 1 (1995), 907.
- [9] EDELSTEIN-KESHET, L., WATMOUGH, J., AND ERMENTROUT, G. B. Trail following in ants: individual properties determine population behaviour. *Behavioral Ecology and Sociobiology* 36, 2 (1995), 119–133.
- [10] ERMENTROUT, G. B., AND RINZEL, J. Beyond a pacemaker’s entrainment limit: phase walk-through. *American Journal of Physiology-Regulatory, Integrative and Comparative Physiology* 246, 1 (1984), R102–R106.
- [11] FISHER, R. A. The wave of advance of advantageous genes. *Annals of Eugenics* 7, 4 (1937), 355–369.

- [12] FOGELSON, A. L., AND KUHARSKY, A. L. Membrane binding-site density can modulate activation thresholds in enzyme systems. *Journal of theoretical biology* 193, 1 (1998), 1–18.
- [13] GURNEY, W., BLYTHE, S., AND NISBET, R. Nicholson’s blowflies revisited. *Nature* 287 (1980), 17–21.
- [14] HASSELL, M., AND MAY, R. Stability in insect host-parasite models. *Theoretical population biology* 42, 3 (1973), 693–726.
- [15] KERMAK, W., AND MCKENDRICK, A. Contributions to the mathematical theory of epidemics. *Bulletin of mathematical biology* 53, 1 (1991), 33–55.
- [16] KERMAK, W. O., AND MCKENDRICK, A. G. Contributions to the mathematical theory of epidemics. ii. the problem of endemicity. *Proceedings of the Royal society of London. Series A* 138, 834 (1932), 55–83.
- [17] LIU, T. G., ADLER, F. R., FITZSIMMONS, S. C., CAHILL, B. C., HIBBS, J. R., AND MARSHALL, B. C. Predictive 5-year survivorship model of cystic fibrosis. *American journal of epidemiology* 153, 4 (2001), 345–352.
- [18] LUDWIG, D., JONES, D. D., AND HOLLING, C. S. Qualitative analysis of insect outbreak systems: the spruce budworm and forest. *The Journal of Animal Ecology* (1978), 315–332.
- [19] MACKAY, M. C., GLASS, L., ET AL. Oscillation and chaos in physiological control systems. *Science* 197, 4300 (1977), 287–289.
- [20] MAY, R. M. Bifurcations and dynamic complexity in ecological systems*. *Annals of the New York Academy of Sciences* 316, 1 (1979), 517–529.
- [21] MAY, R. M., AND OSTER, G. F. Bifurcations and dynamic complexity in simple ecological models. *American Naturalist* (1976), 573–599.
- [22] MEINHARDT, H. Dynamics of stripe formation. *Nature* 376, 6543 (1995), 722–723.

- [23] MONOD, J., WYMAN, J., AND CHANGEUX, J.-P. On the nature of allosteric transitions: a plausible model. *Journal of molecular biology* 12, 1 (1965), 88–118.
- [24] NAGUMO, J., ARIMOTO, S., AND YOSHIZAWA, S. An active pulse transmission line simulating nerve axon. *Proceedings of the IRE* 50, 10 (1962), 2061–2070.
- [25] NICHOLSON, A. J., AND BAILEY, V. A. The balance of animal populations. part i. In *Proceedings of the Zoological Society of London* (1935), vol. 105, Wiley Online Library, pp. 551–598.
- [26] PAULING, L. The oxygen equilibrium of hemoglobin and its structural interpretation. *Proceedings of the National Academy of Sciences of the United States of America* 21, 4 (1935), 186.
- [27] PERELSON, A. S., NEUMANN, A. U., MARKOWITZ, M., LEONARD, J. M., AND HO, D. D. Hiv-1 dynamics in vivo: virion clearance rate, infected cell life-span, and viral generation time. *Science* 271, 5255 (1996), 1582–1586.
- [28] PURCELL, E. M. Life at low reynolds number. *Am. J. Phys* 45, 1 (1977), 3–11.
- [29] TURING, A. M. The chemical basis of morphogenesis. *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences* 237, 641 (1952), 37–72.
- [30] TYSON, J. J., CHEN, K. C., AND NOVAK, B. Sniffers, buzzers, toggles and blinkers: dynamics of regulatory and signaling pathways in the cell. *Current opinion in cell biology* 15, 2 (2003), 221–231.
- [31] VAN DER POL, B., AND VAN DER MARK, J. Lxxii. the heartbeat considered as a relaxation oscillation, and an electrical model of the heart. *The London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science* 6, 38 (1928), 763–775.
- [32] VOLTERRA, V. Fluctuations in the abundance of a species considered mathematically. *Nature* 118 (1926), 558–560.