## PY1SN

Introduction to Systems Neuroscience



Anderson, Britt, Computational Neuroscience and Cognitive Modelling: A Student's Introduction to Methods and Procedures (Los Angeles: SAGE, 2014) <https://www.amazon.co.uk/Computational-Neuroscience-Cognitive-Modelling-Anderson/d p/1446249301/>

Chow, Carson C., Ecole d'été de physique théorique (Les Houches, Haute-Savoie, France), ebrary, Inc, Boris Gutkin, David Hansel, Claude Meunier, and others, Methods and Models in Neurophysics, 1st ed (Amsterdam: Elsevier, 2005) <http://site.ebrary.com/lib/reading/Doc?id=10191640>

'Cplusplus.Com - The C++ Resources Network' <http://www.cplusplus.com/>

Dale, Nell, and Chip Weems, Programming and Problem Solving with C++: Comprehensive, 6th ed. (Jones and Bartlett Publishers, Inc, 2013) <https://www.amazon.co.uk/Programming-Problem-Solving-C-Comprehensive/dp/1284028 763/>

Davis, Stephen R., Beginning Programming with C++ for Dummies (Hoboken, N.J: Wiley, 2010) <http://site.ebrary.com/lib/reading/detail.action?docID=10411557>

Dawson, Michael, Beginning C++ Through Game Programming, 3rd ed. (Cengage Learning, 2010) <http://site.ebrary.com/lib/reading/detail.action?docID=10422877>

Dayan, Peter, and Larry F. Abbott, Theoretical Neuroscience: Computational and Mathematical Modeling of Neural Systems (Cambridge, Massachusetts: The MIT Press, 2001), Computational neuroscience

Dayan, Peter, Larry F. Abbott, and ebrary, Inc, Theoretical Neuroscience: Computational and Mathematical Modeling of Neural Systems (Cambridge, Mass: Massachusetts Institute of Technology Press, 2001), Computational neuroscience <https://ebookcentral.proquest.com/lib/reading/detail.action?docID=6419139>

De Schutter, Erik and ebrary, Inc, Computational Modeling Methods for Neuroscientists (Cambridge, Mass: MIT Press, 2009), Computational neuroscience series <a href="http://site.ebrary.com/lib/reading/Doc?id=10340965">http://site.ebrary.com/lib/reading/Doc?id=10340965</a>

'Dynamical Systems in Neuroscience (Online Book)' <http://www.izhikevich.org/publications/dsn.pdf>

Ermentrout, Bard, and David H. Terman, Mathematical Foundations of Neuroscience (New York: Springer, 2010), Interdisciplinary applied mathematics

<https://www.amazon.co.uk/Mathematical-Foundations-Neuroscience-Interdisciplinary-Mathematics/dp/038787707X/>

Gerstner, Wulfram, Werner M. Kistler, Richard Naud, and Liam Paninski, Neuronal Dynamics: From Single Neurons To Networks And Models Of Cognition (Cambridge University Press, 22AD)

<https://www.amazon.co.uk/Neuronal-Dynamics-Neurons-Networks-Cognition/dp/1107635 195/>

Izhikevich, Eugene M. and ebrary, Inc, Dynamical Systems in Neuroscience: The Geometry of Excitability and Bursting (Cambridge, Mass: MIT Press, 2007), Computational neuroscience <a href="http://site.ebrary.com/lib/reading/Doc?id=10173655">http://site.ebrary.com/lib/reading/Doc?id=10173655</a>

James, Glyn, Modern Engineering Mathematics, Sixth edition (Harlow, England: Pearson, 2020) <https://ebookcentral.proquest.com/lib/reading/detail.action?docID=6401118>

Josuttis, Nicolai M., The C++ Standard Library: A Tutorial and Reference, 2nd ed (Upper Saddle River, NJ: Addison-Wesley, 2012)

Juneja, B.L., and Arun Seth, Programming with C++ (New Age International, 2009) <a href="http://site.ebrary.com/lib/reading/reader.action?docID=10318691">http://site.ebrary.com/lib/reading/reader.action?docID=10318691</a>

Koch, Christof and ebrary, Inc, Biophysics of Computation: Information Processing in Single Neurons (New York: Oxford University Press, 1999), Computational neuroscience <http://site.ebrary.com/lib/reading/Doc?id=10531081>

Lee, Mark, C++ Programming for the Absolute Beginner, 2nd ed. (Course Technology / Cengage Learning, 2009) <a href="http://site.ebrary.com/lib/reading/detail.action?docID=10314633">http://site.ebrary.com/lib/reading/detail.action?docID=10314633</a>

Lippman, Stanley B., Josée Lajoie, and Barbara E. Moo, C++ Primer, 5th ed (Upper Saddle River, NJ: Addison-Wesley)

Lytton, William W., From Computer to Brain: Foundations of Computational Neuroscience (New York: Springer, 2002) <https://ebookcentral.proquest.com/lib/reading/detail.action?docID=3035518>

McGrath, Mike, C++ Programming, 4th ed. (Southam: In Easy Steps, 2011), In easy steps <https://www.amazon.co.uk/C-Programming-easy-steps-4th/dp/1840784326/>

Mueller, John Paul, and Jeff Cogswell, C++ All-in-One for Dummies, Third edition (Hoboken, New Jersey: John Wiley & Sons, Inc, 2014) <a href="http://site.ebrary.com/lib/reading/Doc?id=10902327">http://site.ebrary.com/lib/reading/Doc?id=10902327</a>

'Neuronal Dynamics (Online Book)' <http://neuronaldynamics.epfl.ch/online/index.html>

Pitt-Francis, Joe, and Jonathan Whiteley, Guide to Scientific Computing in C++ (London: Springer-Verlag, 2012), Undergraduate topics in computer science <https://www.amazon.co.uk/Scientific-Computing-Undergraduate-Computer-Science/dp/14 47127358/>

Savitch, Walter J., and Kenrick Mock, Problem Solving with C++, 8th ed (Boston, Mass:

Addison Wesley, 2012) <https://www.amazon.co.uk/Problem-Solving-Global-Walter-Savitch/dp/1292018240/>

Savitch, Walter, and Kenrick Mock, Absolute C++, 6th ed. (Pearson, 2016) <https://www.amazon.co.uk/Absolute-C-Global-Walter-Savitch/dp/1292098597/>

Stroud, K. A., and Dexter J. Booth, Engineering Mathematics, Eighth edition (London: Macmillan International Higher Education, 2020) <https://ebookcentral.proquest.com/lib/reading/detail.action?docID=6418157>

Stroud, K.A., and Dexter J. Booth, Advanced Engineering Mathematics, 5th ed. (Basingstoke: Palgrave Macmillan, 2011) <https://www.amazon.co.uk/Advanced-Engineering-Mathematics-K-Stroud/dp/0230275486 />

Stroustrup, Bjarne, Programming: Principles and Practice Using C++, Second edition (Upper Saddle River, NJ: Addison-Wesley, 2014)

———, The C++ Programming Language, Fourth edition (Boston, [Massachusetts]: Addison-Wesley/Pearson Education, 2013)

Trappenberg, Thomas P., Fundamentals of Computational Neuroscience, 2nd ed (Oxford: Oxford University Press, 2010)

Tuckwell, Henry C., Introduction to Theoretical Neurobiology (Cambridge [Cambridgeshire]: Cambridge University Press, 1988), Cambridge studies in mathematical biology

———, Introduction to Theoretical Neurobiology (Cambridge [Cambridgeshire]: Cambridge University Press, 1988), Cambridge studies in mathematical biology