

DAFTAR PUSTAKA

- [WHO News Report]: *The WHO defines a pandemic as “the worldwide spread of a new disease.”*
- Abboubakar, H., Njouom, R., Nkweteyim, L., & Tchuenche, J. M. (2023). A COVID-19 mathematical model with vaccination and treatment: Global stability analysis and sensitivity analysis. *Mathematical Modelling and Applications*, 8(2), 72-88. <https://doi.org>
- Abboubakar, H., Racke, R., & Schlosser, N. (2025). *A reaction–diffusion model of type SVEAIR to translate the transmission dynamics of COVID-19* (arXiv:2504.21613v1). arXiv. <https://arxiv.org/abs/2504.21613>
- Anton, H., & Rorres, C. (2014). *Elementary Linear Algebra: Applications Version* (11th ed.). Wiley.
- Boyce, W. E. & DiPrima, R. C. (2017). Elementary Differential Equations and Boundary Value Problems. In *The American Mathematical Monthly* (Vol. 86, Issue 7). <https://doi.org/10.2307/2320609>
- Burden, R. L., & Faires, J. D. (2011). *Numerical analysis* (9th ed.). Brooks/Cole, Cengage Learning.
- Castillo-Chavez, C., & Feng, Z. (2004). To treat or not to treat: The case of tuberculosis. *Journal of Mathematical Biology*, 35(6), 629–656. <https://doi.org/10.1007/s00285-002-0198-3>
- CDC. (2023). *How COVID-19 Spreads*. Centers for Disease Control and Prevention. Diakses dari: <https://www.cdc.gov>
- Centers for Disease Control and Prevention. (2021). *How COVID-19 spreads*. Centers for Disease Control and Prevention. <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html>
- Chitnis, N., Hyman, J. M., & Cushing, J. M. (2008). Determining important parameters in the spread of malaria through the sensitivity analysis of a mathematical model. *Bulletin of Mathematical Biology*, 70(5), 1272–1296. <https://doi.org/10.1007/s11538-008-9299-0>
- Diekmann, O., Heesterbeek, J. A. P., & Metz, J. A. J. (1990). *On the definition and the computation of the basic reproduction ratio R_0 in models for infectious diseases in heterogeneous populations*. *Journal of Mathematical Biology*, 28(4), 365–382. <https://doi.org/10.1007/BF00178324>
- Diekmann, O., Heesterbeek, J. A. P., & Roberts, M. G. (2010). The construction of next-

- generation matrices for compartmental epidemic models. *Journal of the Royal Society Interface*, 7(47), 873–885. <https://doi.org/10.1098/rsif.2009.0386>
- Edwards, C. H., Penney, D. E., & Calvis, D. T. (2015). *Differential Equations and Boundary Value Problems*, Fifth Edition.
- Jia, Z., et al. (2023). *Epidemiology of influenza-like illness and respiratory viral etiology in adult patients in Taiyuan City, Shanxi Province, China between 2018 and 2019. Viruses*, 15(11), 2176. <https://doi.org/10.3390/v15112176>
- Kementerian Kesehatan Republik Indonesia. (2021). *Pedoman Pencegahan dan Pengendalian Coronavirus Disease (COVID-19)* (Revisi ke-5). Kementerian Kesehatan RI. <https://infeksiemerging.kemkes.go.id>
- Kementerian Kesehatan Republik Indonesia. (2023). *Inilah Aturan Penanggulangan COVID-19 di Masa Endemi*. Diakses dari <https://kemkes.go.id/id/inilah-aturan-penanggulangan-covid-19-di-masa-endemi>
- Kementerian Kesehatan Republik Indonesia. (2023). *Pusat data dan informasi COVID-19 Indonesia*. <https://covid19.kemkes.go.id>
- Khalil, H.K. (2002). *Nonlinier Systems* (3rd ed.). Prentice Hall.
- Morgan, R. (2015). Linearization and stability analysis of nonlinier problems. *Rose-Hulman Undergraduate Mathematics Journal*, 16(2)
- Nainggolan, J. (2021). *Optimal prevention and treatment control on SVEIR type model spread of COVID-19*. CAUCHY – Jurnal Matematika Murni dan Aplikasi, 7(1), 40–48. <https://doi.org/10.18860/ca.v7i1.12634>
- Ndendya, J.Z., Mlay, G., Rwezaura, H. (2024). *Mathematical modelling of COVID-19 transmission with optimal control and cost-effectiveness analysis*. *Computer Methods and Programs in Biomedicine Update*, 5, 100155.
- Ogata, K. (2010). *Modern Control Engineering* (5th ed.). Prentice Hall.
- Olsder, G. J., & van der Woude, J. W. (2005). *Mathematical systems theory*. Springer
- Strogatz, S. H. (2015). *Nonlinier dynamics and chaos: With applications to physics, biology, chemistry, and engineering*. Westview press.
- Van den Driessche, P., & Watmough, J. (2002). *Reproduction numbers and sub-threshold endemic equilibria for compartmental models of disease transmission*. *Mathematical Biosciences*, 180, 29–48. [https://doi.org/10.1016/S0025-5564\(02\)00108-6](https://doi.org/10.1016/S0025-5564(02)00108-6)
- WHO. (2022). *Coronavirus disease (COVID-19) advice for the public*. World Health Organization. Diakses dari: <https://www.who.int>
- World Health Organization. (2010). *Pandemic influenza preparedness and response: A*

- WHO guidance document*. Geneva: World Health Organization.
<https://apps.who.int/iris/handle/10665/44123>
- World Health Organization. (2010). *What is a pandemic?* WHO.
<https://www.who.int/news-room/q-a-detail/what-is-a-pandemic>
- World Health Organization. (2020). *WHO Director-General's opening remarks at the media briefing on COVID-19 – 11 March 2020*. World Health Organization.
<https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020>
- World Health Organization. (2024). *Coronavirus Dashboard Summary – Global situation*.
<https://data.who.int/dashboards/covid19/summary>
- World Health Organization. (2025, June). *Disease outbreak news: Global COVID-19 update – June 2025*. <https://www.who.int/emergencies/disease-outbreak-news/item/2025-DON572>
- Worldometer. (2025). *Coronavirus cases*. Diakses pada 27 Agustus 2025, dari <https://www.worldometers.info/coronavirus/>
- Yuliana. (2020). Corona virus diseases (Covid-19): Sebuah tinjauan literatur. *Wellness and Healthy Magazine*, 2(1), 187–192. <https://doi.org/10.30604/well.95212020>