References

[1] C. Goble, "Better Software, Better Research," in IEEE Internet Computing, vol. 18, no. 5, pp. 4-8, Sept.-Oct. 2014, doi: 10.1109/MIC.2014.88.

[2] J. E. Hannay, C. MacLeod, J. Singer, H. P. Langtangen, D. Pfahl and G. Wilson, "How do scientists develop and use scientific software?," 2009 ICSE Workshop on Software Engineering for Computational Science and Engineering, 2009, pp. 1-8, doi: 10.1109/SECSE.2009.5069155.

[3] Wilson G, Aruliah DA, Brown CT, Chue Hong NP, Davis M, Guy RT, et al. (2014) Best Practices for Scientific Computing. PLoS Biol 12(1): e1001745. <https://doi.org/10.1371/journal.pbio.1001745>

[4] Tim Storer. 2017. Bridging the Chasm: A Survey of Software Engineering Practice in Scientific Programming. ACM Comput. Surv. 50, 4, Article 47 (November 2017), 32 pages. <https://doi.org/10.1145/3084225>

[5] Soergel DAW. Rampant software errors may undermine scientific results [version 2; peer review: 2 approved]. F1000Research 2015, 3:303 (<https://doi.org/10.12688/f1000research.5930.2>)

[6] Merali, Z. Computational science: ...Error. Nature 467, 775–777 (2010). <https://doi.org/10.1038/467775a>

[7] Wikipedia contributors, "Simulation software," Wikipedia, The Free Encyclopedia, https://en.wikipedia.org/w/index.php?title=Simulation\_software&oldid=1045982192 (accessed October 30, 2021).

[8] Miller G. Scientific publishing. A scientist's nightmare: software problem leads to five retractions. Science. 2006 Dec 22;314(5807):1856-7. doi: 10.1126/science.314.5807.1856. PMID: 17185570.

[9] Jiménez RC, Kuzak M, Alhamdoosh M et al. Four simple recommendations to encourage best practices in research software [version 1; peer review: 3 approved]. F1000Research 2017, 6:876 (<https://doi.org/10.12688/f1000research.11407.1>)

[10] Data Citation Synthesis Group: Joint Declaration of Data Citation Principles. Martone M. (ed.) San Diego CA: FORCE11; 2014 <https://www.force11.org/group/joint-declaration-data-citation-principles-final>

[11] Schindler, D., Bensmann, F., Dietze, S., & Krüger, F. (2021b). SoMeSci-a 5 star open data gold standard knowledge graph of software mentions in scientific articles [accepted]. Proceedings of the 30th ACM International Conference on Information and Knowledge Management (CIKM '21). <https://doi.org/10.1145/3459637.3482017>

[12] Alice Allen, Peter J. Teuben, and P. Wesley Ryan. 2018. Schroedinger’s Code: A Preliminary Study on Research Source Code Availability and Link Persistence in Astrophysics. The Astrophysical Journal Supplement Series 236, 1 (May 2018), 10. <https://doi.org/10.3847/1538-4365/aab764>

[13] Wikipedia contributors, "Data analysis," Wikipedia, The Free Encyclopedia, https://en.wikipedia.org/w/index.php?title=Data\_analysis&oldid=1052485049 (accessed November 3, 2021).

[14] James Howison, Ewa Deelman, Michael J. McLennan, Rafael Ferreira da Silva, James D. Herbsleb, Understanding the scientific software ecosystem and its impact: Current and future measures, Research Evaluation, Volume 24, Issue 4, October 2015, Pages 454–470, <https://doi.org/10.1093/reseval/rvv014>

[15] Testing scientific software: A systematic literature review

[16] Jay, Caroline & Haines, Robert & Katz, Daniel S.. (2020). Software must be recognised as an important output of scholarly research.

[17] Wikipedia contributors, "Ariane 5," *Wikipedia, The Free Encyclopedia,* <https://en.wikipedia.org/w/index.php?title=Ariane_5&oldid=1054482061> (accessed November 12, 2021).

[18] Royal Swedish Academy of Sciences. 2013. Scientific Background on the Nobel Prize in Chemistry 2013. Development of Multiscale Models for Complex Chemical Systems. (October 2013). <https://www.nobelprize.org/uploads/2018/06/advanced-chemistryprize2013.pdf> (accessed November 13, 2021)

[19] HuipingYan and SusanYatabe. Case studies of nuclear research software development. Cnl nuclear review. 8(1): 35-51. <https://doi.org/10.12943/cnr.2017.00013>

[20] Wikipedia contributors, "Comprehensive Nuclear-Test-Ban Treaty," Wikipedia, The Free Encyclopedia, <https://en.wikipedia.org/w/index.php?title=Comprehensive_Nuclear-Test-Ban_Treaty&oldid=1053274189> (accessed November 13, 2021).

[21] <https://www.researchsoft.org/about-resa/>

[22] Barker, Michelle, Katz, Daniel S., & Gonzalez-Beltran, Alejandra. (2020). Evidence for the importance of research software. Zenodo. <https://doi.org/10.5281/zenodo.3884311>

[23] <https://arstechnica.com/information-technology/2019/10/chemists-discover-cross-platform-python-scripts-not-so-cross-platform/>

[24] Yang, B., Rousseau, R., Wang, X., & Huang, S. (2018). How important is scientific software in bioinformatics research? A comparative study between international and Chinese research communities. Journal of the Association for Information Science and Technology, 69. <https://doi.org/10.1002/asi.24031>

[25] Pan, X., Yan, E. & Hua, W. Disciplinary differences of software use and impact in scientific literature. Scientometrics 109, 1593–1610 (2016). <https://doi.org/10.1007/s11192-016-2138-4>

[26] <https://numfocus.org/case-studies/first-photograph-black-hole>

[28] R. Lutz, "Software Engineering for Space Exploration," in Computer, vol. 44, no. 10, pp. 41-46, Oct. 2011, <https://doi.org/10.1109/MC.2011.264>

[29] Wikipedia contributors, "Event Horizon Telescope," Wikipedia, The Free Encyclopedia, <https://en.wikipedia.org/w/index.php?title=Event_Horizon_Telescope&oldid=1052167868> (accessed November 15, 2021).

[30] Wikipedia contributors, "LIGO," Wikipedia, The Free Encyclopedia, <https://en.wikipedia.org/w/index.php?title=LIGO&oldid=1047100294> (accessed November 15, 2021).

[31] <https://pegasus.isi.edu/2017/10/19/pegasus-contributed-to-new-gravitational-wave-detector-discovery/>

[32] <https://phys.org/news/2018-08-software-framework-drug-discovery-ieee.html>