

# Resource Summary Report

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## XSEDE - Extreme Science and Engineering Discovery Environment

RRID:SCR\_006091

Type: Tool

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### Proper Citation

XSEDE - Extreme Science and Engineering Discovery Environment (RRID:SCR\_006091)

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### Resource Information

**URL:** <https://www.xsede.org/>

**Proper Citation:** XSEDE - Extreme Science and Engineering Discovery Environment (RRID:SCR\_006091)

**Description:** XSEDE is a single virtual system that scientists can use to interactively share computing resources, data and expertise. People around the world use these resources and services things like supercomputers, collections of data and new tools to improve our planet. XSEDE resources may be broadly categorized as follows: High Performance Computing, High Throughput Computing, Visualization, Storage, and Data Services. Many resources provide overlapping functionality across categories. Scientists, engineers, social scientists, and humanists around the world - many of them at colleges and universities - use advanced digital resources and services every day. Things like supercomputers, collections of data, and new tools are critical to the success of those researchers, who use them to make our lives healthier, safer, and better. XSEDE integrates these resources and services, makes them easier to use, and helps more people use them. XSEDE supports 16 supercomputers and high-end visualization and data analysis resources across the country. Digital services, meanwhile, provide users with seamless integration to NSF's high-performance computing and data resources. XSEDE's integrated, comprehensive suite of advanced digital services will federate with other high-end facilities and with campus-based resources, serving as the foundation for a national cyberinfrastructure ecosystem. Common authentication and trust mechanisms, global namespace and filesystems, remote job submission and monitoring, and file transfer services are examples of XSEDE's advanced digital services. XSEDE's standards-based architecture allows open development for future digital services and enhancements. XSEDE also provides the expertise to ensure that researchers can make the most of the supercomputers and tools.

**Abbreviations:** XSEDE

**Synonyms:** XSEDE - Extreme Science Engineering Discovery Environment, Extreme Science and Engineering Discovery Environment

**Resource Type:** portal, data or information resource

**Keywords:** data sharing, computing, supercomputer, data, tool, visualization, data analysis, cyberinfrastructure, digital service, high performance computing, high throughput computing, visualization, storage, data service

**Funding:** NSF OCI-1053575

**Resource Name:** XSEDE - Extreme Science and Engineering Discovery Environment

**Resource ID:** SCR\_006091

**Alternate IDs:** nlx\_151554, grid.501421.3

**Alternate URLs:** <https://ror.org/05524hb64>

**Record Creation Time:** 20220129T080234+0000

**Record Last Update:** 20260805T044130+0000

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## Ratings and Alerts

No rating or validation information has been found for XSEDE - Extreme Science and Engineering Discovery Environment.

No alerts have been found for XSEDE - Extreme Science and Engineering Discovery Environment.

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## Data and Source Information

**Source:** [SciCrunch Registry](#)

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## Usage and Citation Metrics

We found 27 mentions in open access literature.

**Listed below are recent publications.** The full list is available at [ASWG](#) .

Cueva Del Castillo R, et al. (2024) Annual temperature, body size, and sexual size dimorphism in the evolution of Pyrgomorphidae. Ecology and evolution, 14(8), e70188.

Javadi E, et al. (2022) Circulating cell clusters aggravate the hemorheological abnormalities in COVID-19. Biophysical journal, 121(18), 3309.

Radhakrishnan R, et al. (2021) A survey of multiscale modeling: Foundations, historical milestones, current status, and future prospects. AIChE journal. American Institute of Chemical Engineers, 67(3), e17026.

Zhao Z, et al. (2021) Learning, visualizing and exploring 16S rRNA structure using an attention-based deep neural network. *PLoS computational biology*, 17(9), e1009345.

Tekle YI, et al. (2021) Comprehensive comparative genomics reveals over 50 phyla of free-living and pathogenic bacteria are associated with diverse members of the amoebozoia. *Scientific reports*, 11(1), 8043.

Mabry PL, et al. (2020) CADRE: A Collaborative, Cloud-Based Solution for Big Bibliographic Data Research in Academic Libraries. *Frontiers in big data*, 3, 556282.

Gerlach GJ, et al. (2020) A disordered encounter complex is central to the yeast Abp1p SH3 domain binding pathway. *PLoS computational biology*, 16(9), e1007815.

Zhao Z, et al. (2020) Genetic grouping of SARS-CoV-2 coronavirus sequences using informative subtype markers for pandemic spread visualization. *PLoS computational biology*, 16(9), e1008269.

Lin C, et al. (2019) Specific inter-domain interactions stabilize a compact HIV-1 Gag conformation. *PloS one*, 14(8), e0221256.

Mays HL, et al. (2018) Genomic Analysis of Demographic History and Ecological Niche Modeling in the Endangered Sumatran Rhinoceros *Dicerorhinus sumatrensis*. *Current biology : CB*, 28(1), 70.

Teodoro G, et al. (2017) Algorithm sensitivity analysis and parameter tuning for tissue image segmentation pipelines. *Bioinformatics (Oxford, England)*, 33(7), 1064.

Song H, et al. (2017) Phylogeny of locusts and grasshoppers reveals complex evolution of density-dependent phenotypic plasticity. *Scientific reports*, 7(1), 6606.

Pienaar E, et al. (2017) Comparing efficacies of moxifloxacin, levofloxacin and gatifloxacin in tuberculosis granulomas using a multi-scale systems pharmacology approach. *PLoS computational biology*, 13(8), e1005650.

Wang B, et al. (2016) Long-Range Signaling in MutS and MSH Homologs via Switching of Dynamic Communication Pathways. *PLoS computational biology*, 12(10), e1005159.

Perkins SJ, et al. (2016) Atomistic modelling of scattering data in the Collaborative Computational Project for Small Angle Scattering (CCP-SAS). *Journal of applied crystallography*, 49(Pt 6), 1861.

Zaytsev YV, et al. (2015) Reconstruction of recurrent synaptic connectivity of thousands of neurons from simulated spiking activity. *Journal of computational neuroscience*, 39(1), 77.

Towers S, et al. (2015) Mass Media and the Contagion of Fear: The Case of Ebola in America. *PloS one*, 10(6), e0129179.

Westergard T, et al. (2015) Interactions of L-3,5,3'-Triiodothyronine [corrected], Allopregnanolone, and Ivermectin with the GABAA Receptor: Evidence for Overlapping Intersubunit Binding Modes. *PloS one*, 10(9), e0139072.

Goecks J, et al. (2015) Open pipelines for integrated tumor genome profiles reveal differences between pancreatic cancer tumors and cell lines. *Cancer medicine*, 4(3), 392.

Darris CE, et al. (2015) Molecular tools to support metabolic and immune function research in the Guinea Fowl (*Numida meleagris*). BMC genomics, 16(1), 358.