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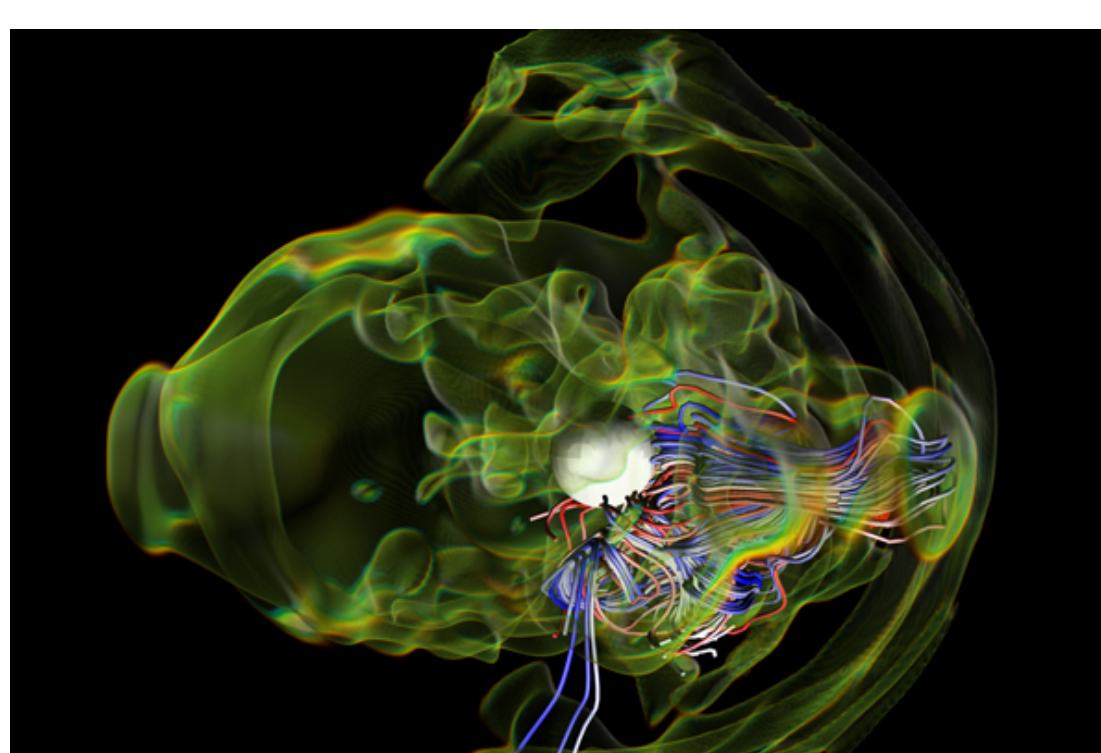
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Computational Partnerships



ASCR Computational Partnerships primarily supports the [Scientific Discovery through Advanced Computing \(SciDAC\)](#) [↗](#) program, which is a recognized leader for the utilization of high-performance computing for scientific discovery.

Established in 2001, SciDAC facilitates partnerships between ASCR, other DOE program offices, and other federal agencies in strategic areas with a goal to dramatically accelerate progress in scientific computing. This is achieved through strong collaborations between discipline scientists, applied mathematicians, and computer scientists. SciDAC provides the intellectual resources in applied mathematics and computer science, expertise in algorithms and methods, and scientific software tools to advance scientific discovery through modeling and simulation in areas of strategic importance to SC, the DOE, and the Nation.

ASCR Computational Partnerships also supports collaborations to enable large, distributed research teams to share data and develop tools incorporating scientific AI/ML for the real-time analysis of the massive data flows from SC scientific user facilities, as well as the research and development of software to support an integrated research infrastructure and computing environment.

ASCR Funding

- FY2025: Scientific Discovery through Advanced Computing (SciDAC) Institutes: [Lab Funding Opportunity](#) [↗](#)
- FY2024: Scientific Discovery through Advanced Computing (SciDAC): Partnership in Electricity: [Press Release](#), [Award List](#) [↗](#), [Lab Funding Opportunity](#) [↗](#)
- FY2023: Advanced Scientific Computing Research for DOE User Facilities: [Press Release](#), [Award List](#) [↗](#), [Lab Funding Opportunity](#) [↗](#)
- FY2023: Biopreparedness Research Virtual Environment (BRaVE): [Press Release](#), [Award List](#) [↗](#), [Lab Funding Opportunity](#) [↗](#)
- FY2023: Scientific Discovery through Advanced Computing (SciDAC) – FES Partnerships: [Press Release](#), [Award List](#) [↗](#), [Funding Opportunity](#) [↗](#)
- FY2022: Advanced Computer Modeling and Epidemiology for Biopreparedness and Response: [Press Release](#), [Award List](#) [↗](#), [Lab Funding Opportunity](#) [↗](#)
- FY2022: Scientific Discovery through Advanced Computing (SciDAC): Partnership in Nuclear Energy: [Press Release](#), [Award List](#), [Funding Opportunity](#) [↗](#)
- FY2022: Scientific Discovery through Advanced Computing (SciDAC): Partnership in Nuclear Physics: [Press Release](#), [Award List](#) [↗](#), [Funding Opportunity](#) [↗](#)
- FY2022: Scientific Discovery through Advanced Computing: Partnerships in Earth System Model Development: [Press Release](#), [Award List](#), [Funding Opportunity](#) [↗](#)
- FY2022: Scientific Discovery through Advanced Computing: High Energy Physics: [Press Release](#), [Award List](#) [↗](#), [Lab Funding Opportunity](#) [↗](#)
- FY2021: Scientific Discovery through Advanced Computing: Partnerships in Basic Energy Sciences: [Press Release](#), [Award List](#) [↗](#), [Funding Opportunity](#) [↗](#)
- FY2020: Scientific Discovery through Advanced Computing: Scientific Machine Learning and Artificial Intelligence for Fusion Energy Sciences: [Press Release](#), [Award List](#) [↗](#), [Funding Opportunity](#) [↗](#), [Lab Funding Opportunity](#) [↗](#)
- FY2020: Scientific Discovery through Advanced Computing (SciDAC) Institutes: [Press Release](#), [Award List](#) [↗](#), [Funding Opportunity](#) [↗](#), [Lab Funding Opportunity](#) [↗](#)
- FY2018: Nuclear Data Interagency Working Group / Research Program: [Press Release](#), [Award List](#), [Lab Funding Announcement](#) [↗](#)
- FY2018: Scientific Discovery through Advanced Computing: Runaway Electron Avoidance and Mitigation in Tokamak Plasmas: [Press Release](#), [Award List](#), [Funding Announcement](#) [↗](#), [Lab Funding Announcement](#) [↗](#)

Award abstracts and information about awards made prior to FY2018 can be found [here](#) [↗](#).

ASCR Workshops and Reports

- [AI for Science: Report on the Department of Energy Town Halls on Artificial Intelligence for Science \(February 2020\)](#)
- [Data and Models: A Framework for Advancing AI in Science \(December 2019\)](#)
- [Workshop Report on Basic Research Needs for Scientific Machine Learning: Core Technologies for Artificial Intelligence \(February 2019\)](#)

Workshop and reports completed prior to FY2018 can be found [here](#).

ASCR Meetings

- [2023 ASCR SciDAC Principal Investigators Meeting](#) [↗](#)
- [2019 ASCR SciDAC Principal Investigators Meeting](#) [↗](#)
- [2018 ASCR SciDAC Principal Investigators Meeting](#) [↗](#)

Other Notable Reports

- [Advanced Research Directions on AI for Science, Energy, and Security: Report on Summer 2022 Workshops \(May 2023\)](#)
- [Basic Energy Sciences Network Requirements Review \(Final Report\) \(November 2022\)](#)
- [Foundation Science for Biopreparedness and Response \(March 2022\)](#)
- [Office of Basic Energy Sciences Roundtable on Producing and Managing Large Scientific Data with Artificial Intelligence and Machine Learning \(October 2020\)](#)
- [Opportunities and Challenges from Artificial Intelligence and Machine Learning for the Advancement of Science, Technology, and the Office of Science Missions \(September 2020\)](#)

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