

Potential Champion Fellows Projects - 2021/22

Principal Investigators and staff member institutions are provided here for your information only. These collaborations will largely be conducted remotely; however, the Fellows program does provide travel funding to the site of the XSEDE staff member to kick off and conclude the collaboration.

Although Campus Champions Fellows are not expected to contribute expertise to the projects to which they are matched, they may need a certain skill set in order to tackle higher-level activities during the course of their fellowships. Prerequisite skills, when necessary, are indicated in the table below.

Title	PI	Institution	Consultant 1	Consultant 2	Consultant 3
A Comprehensive Annotator and Web Viewer for scRNA-seq Data, Y2	Guoshuai Cai	University of South Carolina	Choonhan Youn	Eric Coulter	
Building a responsible, comprehensive, and practical relational database for oceanographic and ecological data, Y4	Anela Choy	Scripps Institution of Oceanography	Amit Chourasia		
Building a sustainable and accessible future for dark matter analysis, Y1	Amy Loren Roberts	University of Colorado, Denver	Andrea Zonca		
Coding and Publishing Environments for Digital Studies Instruction, Y1	Lars Hinrichs	University of Texas at Austin	Lonnie Crosby		
Combining oral histories with NOAA data to illustrate two decades of change in the Florida Reef Tract	Zachary Mason	University of Maryland, College Park	David Bock		
COMPUTATIONAL STUDIES ON PHYSICAL AND CHEMICAL PROPERTIES, Y4	Yigui Wang	Southern Connecticut State University	Dong Ju Choi	Vinit Sharma	
Cyberinfrastructure Resource Integration	Rich Knepper	XSEDE	Rich Knepper		
Decarbonization Studio, Y1	Richard Conant	Colorado State University	Christopher Thompson		
DeepSNAP: Scalable Machine Learning for Mass Spectrometry based Proteomics, Y1	Fahad Saeed	Florida International University	Eroma Abeysinghe	Suresh Marru	
EDGE Bioinformatics Science Gateway, Y2	Patrick Chain	Los Alamos National Laboratory	Anand Padmanabhan		
Expanding the SimVascular Supercomputing Gateway for Research, Y1	Justin Sheldon Tran	California State University-Fullerton	Eroma Abeysinghe	Robert Quick	
Fellows Designed Project	Not Applicable	XSEDE	Not Applicable		
High Resolution Spatial Temporal Analysis of Whole-Head Magnetoencephalography Imaging of a Yogic Breathing Technique That Has Been Successfully Used to Treat Obsessive Compulsive Disorders (Phase 2), Y3	David Shannahoff-Khalsa	University of California, San Diego	Jeff Sale	Mona Wong-Barnum	Robert Quick
Laser-based Structural Sensing and Damage Assessment, Y5	Jerome F. Hajjar	Northeastern University	Victor Eijkhout		
LeafSpec, a mobile distributed sensor for agricultural crop health measurement, Y1	Jian Jin	Purdue University	Lan Zhao		
Material Data Hub, Y1	Surya R Kalidindi	Georgia Institute of Technology	Sudhakar Pamidighantam	Robert Quick	
MoA Research on Advanced Computers, Y1	Lenore Mullin	SUNY at Albany	Manu Shantharam		
Numerical Modeling of the Hydroclimate of South America: A Focus on Land Cover, Y3	Francina Dominguez	University of Illinois at Urbana-Champaign	David Bock	Lonnie Crosby	
OpenTopography: A gateway to high resolution topography data and services, Y2	Viswanath Nandigam	San Diego Supercomputer Center	Choonhan Youn		
Powering the HydroShare Science Gateway, Y2	David Gavin Tarboton	Utah State University	Anand Padmanabhan		

Prediction of Broadband Noise Generation in a Turbofan Bypass Duct, Y1	Duane Ramon Hixon	University of Toledo	Robert McLay		
Reliable Atomistic and Multiscale Simulations of Materials, Y1	Ellad B Tadmor	University of Minnesota	Od Odbadrakh	Sudhakar Pamidighantam	
RNAMake Science Gateway: a public resource for the design and analysis of RNA 3D structure for custom nanomachines, Y1	Joseph Yesselman	University of Nebraska-Lincoln	Eroma Abeysinghe	Robert Quick	
Roles of Actomyosin Contractility in Cell-Scale Behaviors and Long-Range Cell-Cell Communication, Y3	Taeyoon Kim	Purdue University	Yang Wang		
Scaling beyond the Imry-Ma length in the 3D Random Field XY Model, Y1	Ronald Fisch	Other	Dong Ju Choi		
Simulating atmospheric aerosols and aerosol-cloud interactions with the Met Office Unified Model, Y1	Hamish Gordon	Carnegie Mellon University	David C. O'Neal	David C. O'Neal	
Simulating global climate with turbulence-permitting cloud superparameterization to train machine learning emulators and advance understanding of aerosol-cloud feedbacks, Y2	Michael Pritchard	University of California, Irvine	David Walling		
Simulations of Core-Collapse Supernovae with ELEPHANT, Y1	Carla Frohlich	North Carolina State University	Bruno Abreu		
Spatially-explicit agent-based modeling of COVID-19 transmission in elementary schools, Y1	Ilya Zaslavsky	University of California, San Diego	Eroma Abeysinghe		
Stellar Mergers and Stellar Tidal Disruptions on a Moving Mesh, Y1	Philip Chang	University of Wisconsin-Milwaukee	Junjie Li		
Supporting Geospatial Fellows for Advancing COVID-19 Research & Education, Y1	Shaowen Wang	University of Illinois at Urbana-Champaign	Anand Padmanabhan		
The Distant Reader: A Tool for Reading at Scale, Y1	Eric Lease Morgan	University of Notre Dame	Sergiu Sanielevici		
Workforce Development: Education	Kate Cahill	XSEDE	Kate Cahill		