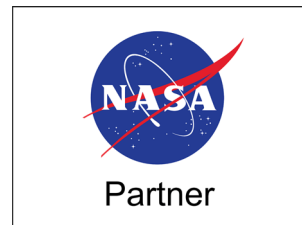


SciX Advisory Board

Anna Kelbert and the ADS Team

ADS Users Group Meeting, 05-06 Dec. 2024

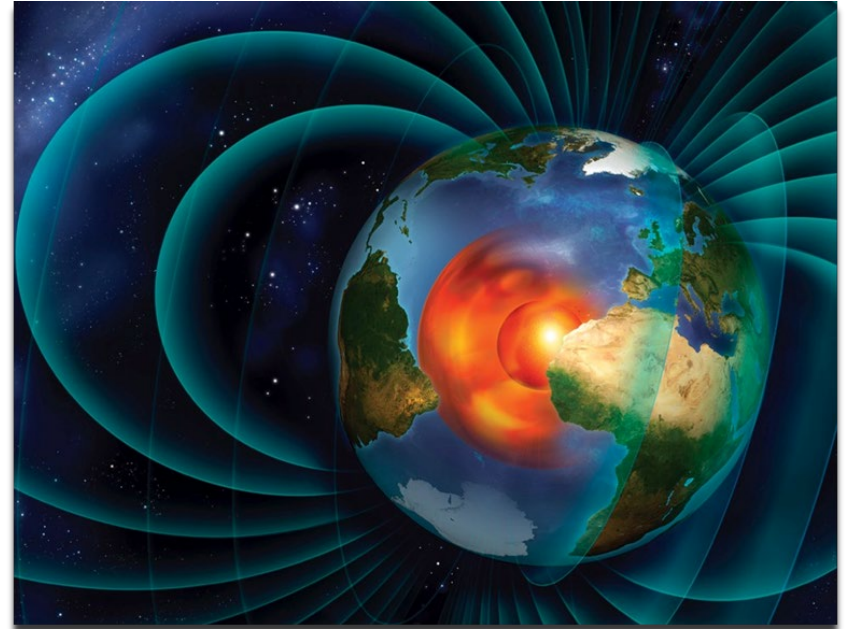




Project Scientist for Earth Science

Dr. Anna Kelbert

- Ph.D. in global electromagnetic induction of the Earth
- Expertise in geophysics and space weather hazards
- Experience in aspects of interdisciplinary cyberinfrastructure for the geosciences, including model coupling, semantics, data stewardship and others
- Leadership experience through NSF's EarthCube program (2012-2022) and several international organizations executive committees



Schematic showing the interior of the Earth and the near-Earth magnetosphere



SciX Advisory Board Status

- **SciX Advisory Board (SciX AB) is complementary to ADSUG**
 - Intended to complement the expertise and guidance of ADSUG by covering the expansion disciplines of SciX
 - Serves in advisory capacity to help guide content curation, technical infrastructure, management, and priority setting for SciX expansion
 - 10-15 scientists and representatives from the library and digital repository communities
 - Covers subdisciplines of Earth science, heliophysics, planetary science and NASA-funded biological and physical sciences
- **Progress to date**
 - SciX AB chair onboarded: Louis Moresi, Professor of Computational Geophysics at the Australian National University
 - Call for nominations and self-nominations issued and now closed
 - 58 candidates considered; initial selections made



SciX Advisory Board Plan

- **Plan for SciX AB operations**
 - Quarterly meetings, mostly remote by occasionally in-person at CfA
 - Staggered three-year terms
 - Ex-officio representation: PI, Project Scientists for Astrophysics, Planetary Science and Earth Science, four NASA Division Representatives, ADS Users Group chair
 - SciX AB chair will attend the ADSUG meetings in ex-officio capacity
- **Long-term co-existence of ADSUG and SciX AB**
 - Following NASA's guidance we will have these two advisory board exist for the length of the next 5yrs until the end of the current cooperative agreement
 - The ADSUG advises on the priorities for the ADS project while the SciX AB advises about the expansion priorities
 - We expect that information provided to, and advise stemming from, the two advisory boards will be shared between the groups. The chairs will facilitate dissemination of information

NASA Earth Science Division: Focus Areas and Communities

- **Atmospheric Composition** (AC) conducts research on Earth's atmosphere, including its chemical and physical properties, Earth's energy budget, and air quality.
- **Weather and Atmospheric Dynamics** (WAD) researches the dynamics of the atmosphere to improve our understanding of the fundamental processes that drive weather.
- **Climate Variability and Change** (CVC) measures and models Earth's dynamic systems and how they change over time.
- **Water and Energy Cycle** (WEC) supports focused and crosscutting research to improve our understanding of the global water cycle.
- **Carbon Cycle and Ecosystems** (CCE) detects, explains, and predicts changes in Earth's ecosystems, biogeochemical cycles, biodiversity, and land cover.
- **Earth Surface and Interior** (ESI) supports research and analysis of solid-Earth processes from crust to core.



CSDMS
community surface
dynamics modeling system



DataONE



NSF
**ARCTIC
Data
Center**



EarthScope
Consortium



unidata

SIP
MAKING DATA MATTER



SciX AB Expertise Diversification

Disciplinary Expertise

- Planetary Science/Remote Sensing
- Heliophysics/Space Weather
- Biological and Physical Sciences
- Geology
- Geophysics
- Hydrology
- Ocean Science
- Atmospheric Science
- Polar Science
- Climate Science

Technical Expertise

- Simulations/data assimilation/HPC
- Big data
- Software publishing
- High pressure experiments
- Physical samples
- Library science / Digital repository
- AI/ML
- Knowledge Management
- Geographic Information Systems
- Education / Community outreach



SciX Advisory Board Recruitment

Tr	Affiliation	Stage	Scientific expertise	Technical expertise	Gender
	UC San Diego	Not contacted	Geology Hydrology	Knowledge management GIS	Male
	UC Boulder / CSDMS	Not contacted	Hydrology	Knowledge management	Male
	NASA	Not contacted	Space Weather	Simulations/data assimilation/HPC	Male
	NASA JPL	Not contacted	Space Weather	Knowledge management AI/ML	Male
	U of Alaska Fairbank	Not contacted	Geophysics Seismology	Simulations/data assimilation/HPC Software publishing	Male
	USGS	Not contacted	Seismology Natural Hazards	Simulations/data assimilation/HPC Software publishing	Male
	Bard College	Not contacted	Biological and Physical Sciences Ocean Science	Physical samples Education	Female
	U of Texas Austin	Not contacted	Hydrology Other	Knowledge management GIS	Male
	Alfred Wegener Institut	Not contacted	Biological and Physical Sciences Ocean Science	Knowledge management	Male
	Woods Hole (BCO-DP)	Not contacted	Biological and Physical Sciences Ocean Science	Knowledge management Library science/Digital repository	Female
	OPeNDAP	Not contacted	Atmospheric Science Climate Science	Knowledge management Library science/Digital repository	Male
	California Digital Library	Not contacted	Ocean Science	Library science/Digital repository	Male
	Virginia Tech	Not contacted	Geophysics	Simulations/data assimilation/HPC Education	Female
	Lamont-Doherty (LDEO)	Not contacted	Geology Biological and Physical Sciences	Physical samples Library science/Digital repository	Female
	U.S. Geoscience Information System	Not contacted	Geology	Knowledge management Library science/Digital repository	Male
	George Mason University	Not contacted	Space Weather	Simulations/data assimilation/HPC AI/ML	Male
	NASA JPL	Not contacted	Climate Science Biological and Physical Sciences	Big data Simulations/data assimilation/HPC	Male