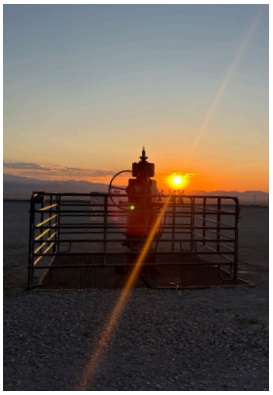
New Frontiers for Geothermal Energy:

From Hot Rocks to a Future Low-Carbon Grid

IRESS 2026

Industry-Rice Earth Science Symposium



April 9-10, 2026

James A. Baker Hall, Rice University

RICE UNIVERSITY'S Baker Institute for Public Policy

RICE NATURAL SCIENCES Earth, Environmental and Planetary Sciences

RICE ENGINEERING AND COMPUTING Department of Chemical and Biomolecular Engineering

RICE ENGINEERING AND COMPUTING Department of Civil and Environmental Engineering

RICE ENGINEERING AND COMPUTING Department of Computational Applied Mathematics and Operations Research

Welcome to IRESS 2026

New Frontiers for Geothermal Energy: From hot rocks to future low-carbon grid

Geothermal energy production, despite providing crucial low-carbon base load support to a greening grid, has been underutilized during the early phases of the global energy transition. The motivation of this symposium is to bring together industry, academic, and government leaders from different disciplines to explore the challenges and exciting opportunities confronting an accelerating geothermal sector, particularly recent advances in enhanced geothermal systems (EGS) and high-temperature exploration.

1	F5	Baker Hall, James A.
2	F4	Keith-Wiess Geological Laboratories
3	A5	Greenbriar Lot G
4	E3	North Annex Lot
5	E5	Central Campus Garage
6	D6	Moody Lot
7	H4	Founder's Court Visitor Lot
8	F8	BRC Garage
9	F4	Local Foods at Brochstein Pavilion
10	E3	North Lot
11	H3	Lovett Lot
12	C5	West Lot 2
13	H5	Entrance 3 Garage

Meeting Venue: James A. Baker Hall (1)

Closest Public Parking: (4) (5)

Posters: Brochstein Pavilion (9)

Kieth Wiess Geological Laboratories (2)

Scan code for searchable map

SCHEDULE- James A. Baker Hall

DAY 1: THURSDAY, APRIL 9TH

07:30 – 08:30: Coffee & Pastries

Introduction IRESS & Rice

08:30 – 08:40: Intro to IRESS & Symposium Logistics (Prof. Jonathan Ajo-Franklin)
08:40 – 08:45: Welcome & Strategic Plan (Prof. David Sholl, Rice Vice President of Research)
08:45 – 08:55: Introduction to Sustainability Efforts at Rice (Prof. Carrie Masiello, RSI Director)

Session 1: Realizing EGS and Advanced Geothermal at Scale

08:55 – 09:00: Session Introduction (Prof. Jonathan Ajo-Franklin)
09:00 – 09:30: **Dr. Jack Norbeck (CTO, Fervo Energy, Plenary)**
Deploying Enhanced Geothermal Systems at Scale: An Update on Fervo Energy's Projects in Nevada and Utah
09:30 – 10:00: **Mr. Brian Groody (VP of New Energy, Baker Hughes, Co-plenary)**
From Oilfield to Powerfield: Industrializing enhanced geothermal systems (EGS) from the energy sector perspective

10:00 – 10:15: *Break*

10:15 - 10:45: **Dr. Lauren Boyd (Director, GTO, US DOE)**
Drilling for Opportunities: The Office of Geothermal
10:45 - 11:15: **Mr. Mike Eros (Chief Geoscientist, Sage Geosystems)**
Pressure Geothermal Developments in the Energy Mix
11:15 - 11:45: **Prof. Jonathan Ajo-Franklin (Rice, EEPS)**
The Frontiers of Seismology at High Temperatures: Rice EGS Research at Utah FORGE & Cape Station

11:45 - 12:45: *Lunch*

Session 2: Volcanoes, Ultra-Hot Rocks, and Geothermal Out of this World

12:45 - 12:50: Session Introduction (Prof. Melodie French)
12:50 - 1:15: **Prof. Brandon Schmandt (Rice, EEPS)**
Seismic imaging and heat budget estimation of Yellowstone's magma reservoir
1:15 – 1:40: **Mr. Mathew Houde (Co-Founder, Chief of Staff, Quaise Energy)**
Exploration and Planning a High-Temperature EGS Plant in Central Oregon
1:40 – 2:05: **Prof. Alan Levander (Rice, EEPS)**
The Magma Systems under Mount St Helens
2:05 – 2:30: **Prof. Kirsten Siebach (Rice, EEPS)**
Ancient hydrothermal activity on Mars: How hot was water on the Red Planet?

2:30 – 2:45: *Break*

Session 3: Stuck in Hot Water: Geothermal Brines, Critical Minerals, and Waste Water Disposal

2:45 – 2:50:	Session Introduction (Prof. Qilin Li)
2:50 – 3:15:	**Prof. William Stringfellow (LBNL, U. Pacific)** *Recovering critical minerals from natural and waste brines: emerging technologies and critical research needs*
3:15 – 3:40:	**Dr. Jennifer Erich (ExxonMobil, Lithium Portfolio Manager)** *Our Why: Lithium & The Dual challenge*
3:40 – 4:05:	**Prof. Cin-Ty Lee (Rice, EEPS)** *The landscape of lithium resources for the next decade.*
4:05 – 4:30:	**Prof. Qilin Li (Rice, CEVE)** *Solid by-product considerations for geothermal critical element extraction*
4:35 – 5:00:	***Round Table 1: Dr. Tobias Hoeink (Baker Hughes), Dr. Jack Norbeck (Fervo), Mr. Mathew Houde (Quaise) Prof. Will Stringfellow(LBNL); moderated by Dr. Malcolm Ross (EEPS)***
5:00 – 6:20:	**Student Poster session (Brochstein Pavillion, Lounge)**
6:30 – 8:00:	**Banquet**

Day 2: Friday, April 10th

07:30 – 08:30:	Coffee & Pastries

Session 4: Artificial Intelligence and Advanced Simulation Strategies

08:30 – 08:35:	Session Introduction (Prof. Sahar Bakhshian)
08:35 – 09:00:	**Dr. Rachel Morrison (Prospect R&D Lead, Zanskar Energy & Minerals)** *Selecting the Right Tool for the Right Problem: AI Across the Geothermal Workflow*
09:00 – 09:25:	**Dr. Koenraad Beckers (Modeling R&D Lead, ResFrac)** *Key Advances in EGS Modeling: Faults, Flow Uniformity, Reservoir Uncertainty and Full Field Simulations*
09:25 – 09:40:	**Prof. Sahar Bakhshian (Rice, EEPS)** *Subsurface Multiphase Flow Modeling: From Pore-Scale Physics to Reservoir Dynamics*
09:45 - 10:00:	**Prof. Abbas Firoozabadi (Rice, CHBE)** *Hydraulic fracturing, seismic activation, and power generation by water and CO_2 in EGS: Phase field simulations and the thermodynamics framework*
10:00- 10:15:	**Dr. Malcolm Ross (Rice, EEPS)** *Is geothermal energy a viable option for AI-focused data center cooling in the Gulf Coast of Texas?*
10:15 – 10:30:	*Break*

Session 5: Geothermal and Future Energy Systems

10:30 – 10:35: Session Introduction (Prof. Ken Medlock)

10:35 – 11:00: **Ms. Paola Perez (S&P Global)**
Meeting the Next Wave of Power Demand The Role of Geothermal and SMRs in Clean Firm Energy

11:00 – 11:25: **Prof. Dan Cohan (Rice, CEVE)**
Modeling the potential for geothermal electricity and heat

11:25 – 11:50: **Mr. Barry Smitherman, (Texas Geothermal Energy Association)**
Discussion

11:50 – 12:00: **Closeout & poster awards**

12:15 - 1:15: *Lunch*

POSTERS- Brochstein Pavilion

PRESENTERS	TITLE	POSITION
Anindita Dash	Implications of Permeability Reduction from Fines Migration and Injectivity Loss during CO2 Injection: 2D CFD-DEM Study	**1**
Ava Garrelts, Anniee Fang	Introducing Geothermal at Rice University: A Sustainable Heating and Cooling System Proposal	**2***
Kristal Hanson	Using the Earth as a Heat Sink to Improve Geothermal Powerplant Cooling Efficiency	**3***
Nahid Hasan	A Geometry-Aware Physics-Informed Machine Learning Framework for Multiscale Flow Modeling in Fractured Geothermal Systems	**4**
Noe Hernandez	Phase-Field Modeling of Fractures in Geothermal Systems	**5**
Brandon Herr	Seismic Structure of the Three Sisters Volcanic Complex using a Nodal Array	**6**
Jordan Jafar	Impact of Multi-Well Configurations and Fracture Patterns on Co-Production of Heat and Lithium in Geothermal Reservoirs	**7**
Jaewoo Kim	Distributed Acoustic Sensing-derived focal mechanisms reveal spatial variability in stress and fracture behavior at Utah FORGE	**8**

PRESENTERS	TITLE	POSITION
Matthew Kumar	"Assessing the Risk of Halite Precipitation Near the Wellbore During CO2 Injection in Saline Aquifers"	**9**
Thomas Lee	Near surface seismic velocity variations driven by earthquakes in Alaska	**10**
Jarely Mendez	Seismic Response of Geothermal Fault Zones Using Rock Physics Modeling	**11**
Facundo Miret	Copahue Geothermal: The Gap Between Technical Resource and Bankability	**12**
Eleanor (Ellie) Moreland	"MIST: An Online Tool Automating Mineral Identification by Stoichiometry in Geochemical Datasets"	**13**
Jong Gil Park	How bubble nucleation triggers magma fragmentation in explosive volcanic eruptions	**14**
Audrey Putnam	From landform to pore-filling alteration: a look at the architecture of a novel style of ice-marginal volcanism and associated hydrothermal alteration chemistry	**15**
Daniel Sikes	Geochemical unmixing models to inform sample mineralogy and improve fracture propagation estimates for geothermal	**16**
Josie Taylor	Crystallographic Controls on the Frictional Strength and Stability of Phyllosilicates	**17**
Edgar Villegas	Frictional Strength and Permeability of Pelagic Carbonate Sediments from the Northern Hikurangi Margin	**18**
William Wheeler	Feasibility for Low-Grade Enhanced Geothermal to Offset Carbon Emissions in District Heating Systems	**19***
Fu Yin	DAS Microseismic Interferometry Reveals Basement Velocity and Fault Systems at Fervo Cape and Utah FORGE Sites	**20**
Ainul Afifi Zafirah	Aurora G.O.L.D: Geothermal Opportunities Leveraged through Data: A Comprehensive Technoeconomic Analysis	**21**
Rosie Zhu	High-Resolution Near-wellbore Imaging at the Fervo EGS Site: Microseismic Body Wave Interferometry Using Dense DAS Arrays	**22**
Mira Goldstein	Technoeconmic Analysis of Alternative Cooling Strategies for Geothermal Power Plants	**23***

**Undergraduate posters*

POSTER POSITION MAP

Entrance
(Fondren side)

Link to abstracts

Restroom Entrances

	2*	6	12
	3*	7	13
23*	19*	8	15
22	1	9	16
21	4	10	17
20	5	11	18

Entrance
(RMC side)

*** Undergraduate posters**

ABSTRACTS (Session Talks)

Dr. Jack Norbeck (CTO, Fervo Energy)

Deploying Enhanced Geothermal Systems at Scale: An Update on Fervo Energy's Projects in Nevada and Utah

Skyrocketing electricity demand from AI data centers and increasing pressure on grid reliability have created strong demand for always-on, dispatchable clean power — and geothermal is uniquely positioned to deliver it. In this talk, we will review the market forces behind geothermal's resurgence and take stock of where EGS technology stands today. We will provide an update on the status of Fervo Energy's projects in Nevada and Utah, focusing on how commercial-scale deployment is unlocking a rapid pace of innovation for the industry.

Mr. Brian Groody (VP of New Energy, Baker Hughes, Co-plenary)

From Oilfield to Powerfield: Industrializing enhanced geothermal systems (EGS) from the energy sector perspective

Geothermal energy is advancing beyond traditional hydrothermal systems, propelled by breakthroughs in drilling, reservoir engineering, and closed-loop technologies. These innovations extend resource access, improve project economics, and reduce above-ground and subsurface risk. We discuss how the energy sector views EGS as a bankable, scalable baseload solution. Drawing on decades of subsurface execution, manufacturing scale, and project finance discipline, historical energy sector participants increasingly view EGS as an investable pathway where technology readiness, risk mitigation, and long-duration cash flows can meet institutional capital requirements.

Dr. Lauren Boyd (Director, GTO, US DOE)

Drilling for Opportunities: The Office of Geothermal

We will outline the Office of Geothermal's research portfolio, with particular focus on how DOE-funded efforts are helping to advance EGS, reduce costs and risks for geothermal drilling and exploration, and foster research collaboration

Dr. Mike Eros (Chief Geoscientist, Sage Energy)

Pressure Geothermal Developments in the Energy Mix
Phase-Field Modeling of Fractures in Geothermal Systems

Subsurface long-duration energy storage (LDES) and 'pressure geothermal' or pressurized geothermal approaches in hot dry rock have developed with Sage Geosystem's pilot test sites in Texas, and have broad applicability across the USA and around the world. These approaches to power plant and energy storage design are built on subsurface approaches for drillwell planning and fracture completions invented in the oil and gas industry, coupled with advances in surface power plant design derived from the traditional geothermal and hydroelectric power industries. Pressure geothermal approaches offer low-carbon baseload power, direct heat, and energy storage solutions as demand for affordable energy is increasing globally, while water supplies and grid stability are also increasingly challenged. As 'next generation' geothermal developments break ground in the USA, the industry is rapidly learning how to improve system efficiencies and safely reduce costs. Geophysics and geology underpin

these engineered solutions, especially in terms of partnerships focused on characterizing low-permeability hot dry rock resources in diverse settings such as crystalline, metamorphic, and sedimentary basins.

Prof. Jonathan Ajo-Franklin (Rice, EEPS)

The Frontiers of Seismology at High Temperatures: Rice EGS Research at Utah FORGE & Cape Station

Recently demonstrated EGS approaches present a significant scalable opportunity for geothermal energy production. Simultaneously, a variety of interesting science challenges have been exposed during EGS pilot projects over the last decade, particularly that of understanding the induced fracture network geometry and interactions of such networks with existing basement structural features. We present results from a series of studies utilizing novel high temperature fiber optic sensing tools and imaging algorithms to unravel such interactions at the Utah FORGE and Cape Station sites.

Prof. Brandon Schmandt (Rice, EEPS)

Seismic imaging and heat budget estimation of Yellowstone's magma reservoir

Yellowstone's pyroclastic deposits and nested caldera structure provide vivid evidence of an energetic magmatic history. The presentation will synthesize recent seismic imaging advances and geochemical constraints to provide new insights into the modern properties and thermal budget of the upper crustal magma reservoir.

Dr. Trenton Cladouhos (Chief of Geoscience, Quaise Energy)

Exploration and Planning a High-Temperature EGS Plant in Central Oregon

Quaise, a geothermal development and drilling company, has broken ground on a high-temperature geothermal power project in Central Oregon called Project Obsidian. The project begins with a deep appraisal well in 2026 and progresses to drilling, stimulation, and circulation testing of a EGS doublet by Q1 2027. The goal for the first phase is a 50 MW power plant fed by six wells reaching commercial operation by 2030.

Prof. Alan Levander (Rice, EEPS)

The Magma Systems under Mount St Helens

Mount St Helens, a volcano in the Cascade volcanic arc in southwestern Washington, erupted catastrophically on May 18, 1980. Since then a number of studies have been undertaken to understand the magmatic plumbing system under the volcano. Seismic investigation have included seismicity studies, eruption source mechanics , and local earthquake tomography. In 2014-2017 the iMUSH project, funded by NSF and the USGS, fielded a series of seismic and magnetotelluric experiments. [iMUSH = imaging Magma Under St Helens]. The iMUSH active seismic experiments have provided constraints on the complex structure and melt content of the Mount St Helens plumbing system.

Prof. Kirsten Siebach (Rice, EEPS)

Ancient hydrothermal activity on Mars: How hot was water on the Red Planet?

Mars today is cold and has limited atmospheric pressure, so it cannot support liquid water. However, geomorphologic, sedimentologic, and mineralogic evidence make it clear that there was liquid surface water and groundwater in the past. Evidence indicates that most of the water was very cold, near freezing

temperatures, but a few spots observed by the Curiosity and Perseverance rovers show alteration mineralogy that hints at water-rock interactions at warmer temperatures, up to ~250°C. I will review the evidence constraining the temperature of liquid water on ancient Mars.

Prof. William Stringfellow (LBNL, U. Pacific)

Recovering critical minerals from natural and waste brines: emerging technologies and critical research needs

Geothermal waters and spent brines from geothermal power plants are being considered as sources of critical elements needed for advanced energy systems and technologies. Many geothermal fluids contain significant concentrations of critical elements, such as lithium. However, critical elements occur in a complex mixture of salts and metals, so the value of the critical elements is dependent on the ability to collect and separate the target element from other solutes in the geothermal fluid. We will discuss the critical elements present in geothermal fluids and the technologies proposed for the extraction of lithium and other valuable elements from geothermal fluids. The technology used for the separation and extraction of lithium will be discussed in the context of the complexity of geothermal brine chemistry. Currently, extraction process-trains produce solid by products that need environmental management and have an overall negative economic impact. However, process by-products have potential economic value and we will explore the advantages of a "whole-brine" approach to valuing geothermal brines as a sources of critical elements.

Dr. Jennifer Erich (ExxonMobil, Lithium Portfolio Manager)

Our Why: Lithium & The Dual challenge

Lithium plays a critical role in addressing the dual energy challenge by enabling large-scale battery storage and enabling the growing shift towards electric vehicles. As global demand for EV batteries increases, ExxonMobil is actively evaluating opportunities to become a leading lithium supplier, leveraging our subsurface expertise and advanced technologies to unlock and extract lithium from brine resources.

Prof. Cin-Ty Lee (Rice, EEPS)

The landscape of lithium resources for the next decade.

Lithium has become one of the most important critical minerals for the energy transition. However, lithium is not distributed equally throughout the world and there are critical choke points in the lithium supply chain. This talk will review the different types of lithium resources, focusing on their geologic origins and the prospects of extraction and refining. We will discuss both conventional and unconventional lithium resources.

Prof. Qilin Li (Rice, CEVE)

Solid by-product considerations for geothermal critical element extraction

Natural and waste brines represent one of the largest yet underutilized resources for critical mineral recovery, offering a compelling opportunity to couple energy production with domestic supply-chain resilience. Geothermal and oil field brines often contain elevated concentrations of critical minerals, but their extreme salinity, complex geochemistry, and high variability pose fundamental scientific and engineering challenges. Realizing this potential requires advances in selective

separation materials, interfacial and electrochemical processes, and adaptive treatment architectures that can operate reliably under harsh and dynamic conditions. Equally important are system-level innovations that integrate mineral recovery with water management, energy efficiency, and environmental protection, supported by real-time sensing, data-driven control, and techno economic and life-cycle assessment. This talk will highlight emerging technologies and critical research gaps and outline a vision for transforming energy production brines from a costly liability into a strategic resource for critical minerals, water reuse, and sustainable energy systems.

Dr. Rachel Morrison (Prospect R&D Lead, Zanskar Energy & Minerals)

Selecting the Right Tool for the Right Problem: AI Across the Geothermal Workflow

We demonstrate how artificial intelligence is applied across the geothermal exploration workflow at Zanskar, with examples spanning early-stage resource identification and assessment to simulation and well targeting. Through case studies such as classical machine learning approaches to play fairway analysis, statistical analysis of shallow temperature surveys, and neural network methods for subsurface prediction, we illustrate the importance of selecting methods that align with the problem rather than defaulting to increasing model complexity. Beyond specific techniques, we emphasize a broader perspective on AI: model performance is fundamentally shaped by problem framing, understanding the domain, and collaboration. Aligning AI development with clear objectives, engaging end model users, and structuring research as iterative, time-bound experiments can lead to more impactful outcomes. As AI capabilities continue to expand, maintaining a strong human element through communication, critical thinking, and shared context remains essential to ensuring these tools deliver meaningful value in subsurface applications.

Dr. Koenraad Beckers (Modeling R&D Lead, ResFrac)

Key Advances in EGS Modeling: Faults, Flow Uniformity, Reservoir Uncertainty and Full Field Simulations

Abstract: This presentation highlights recent advances and remaining challenges in modern Enhanced Geothermal System (EGS) designs, focusing on four key areas and their implementation in ResFrac: pre-existing faults, flow uniformity, subsurface uncertainty, and reservoir parallelization for full lateral simulations. We examine the impact of pre-existing faults during both stimulation and circulation, and present modeling strategies to capture their behavior. Approaches to enforce flow uniformity along horizontal wells are then reviewed, including a case study on sliding sleeves equipped with flow control devices. To address subsurface uncertainty, we present a Monte Carlo-based analysis applied to a field site in the Wattenberg Field, demonstrating variability in reservoir performance. Finally, we discuss modeling techniques to capture reservoir heterogeneity and heel-to-toe bias through parallelized simulations, enabling full lateral and field-scale representations.

Prof. Sahar Bakhshian (Rice, EEPS)

Subsurface Multiphase Flow Modeling: From Pore-Scale Physics to Reservoir Dynamics

Subsurface energy systems are inherently governed by complex heterogeneity across multiple scales, where pore-scale processes strongly influence reservoir-scale behavior. Understanding this heterogeneity is critical for long-term system performance. Subsurface multiphase flow processes are often further complicated by multiphysics interactions such as phase behavior, thermal effects, and reactive transport. This presentation highlights our research studies on pore-scale modeling, reservoir simulations, and microfluidic experimental approaches to better understand the impact of heterogeneity on the physics of subsurface flow. At the reservoir scale, we investigate coupled wellbore-reservoir modeling during CO_2 injection, examine the impact of multiphysics processes such as salt precipitation near the wellbore, which can significantly alter permeability and injectivity, and explore coupled heat and solute transport in geothermal systems to assess how well's configuration and fracture heterogeneity influence the co-production of heat and lithium. At the pore scale, we model flow and transport in fractured media and develop physics-informed machine learning approaches to upscale petrophysical properties, enabling improved representation of complex heterogeneity in large-scale simulations. In parallel, we are developing microfluidic experiments to probe transport and reaction mechanisms in complex porous systems, with a focus on resource recovery from subsurface fluids such as geothermal brine.

Prof. Abbas Firoozabadi (Rice, CHBE)

Hydraulic fracturing, seismic activation, and power generation by water and CO 2 in EGS: Phase field simulations and the thermodynamics framework

Fracturing of rocks by CO2 and by water have drastic differences. The fracturing pressure by CO2 is lower than by water; induced fractures by CO 2 have higher density than water. Thermal stress promotes fracture branching; the intensity by CO2 is higher than by water. In seismic activation, CO2 may result in higher friction coefficients than water whereas slip velocity by water may be higher than by CO 2 . In heat extraction in EGS, CO2 may have much longer thermal breakthrough than water at the same mass injection rate. There are fundamental differences in power generation by heat carrier fluids. Despite widespread literature report, neither heat content nor exergy can describe power generation by water and by CO2 . Fracture propagation and fracture shape by different fluids cannot be described by combining rock mechanics and fluid flow concepts. The minimization of the total energy with consideration strain energy and fluid-rock surface energy within thermodynamic framework provides an additional expression , the phase field equation, that predicts fracture nucleation, growth and shape. In recent years, the phase field approach has been also advanced to predict seismic activation without fluid injection. There are four sets of differential equations that can be discretized in the conventional finite element for displacement and the mixed hybrid finite element to describe fracturing and seismic activation. Recently we have advanced the same higher-order method to compute pressure and temperature in EGS. Power generation computations are also advanced. The presentation covers the essence of recent advances and the need for further innovations to perform accurate computations in relation to power generation from EGS in fracturing and seismic activation.

Dr. Malcolm Ross (Rice,EEPS)

Is geothermal energy a viable option for AI-focused data center cooling in the Gulf Coast of Texas?

"AI-focused data centers are driving unprecedented growth in electricity demand, cooling loads, and water consumption, creating an urgent need for low-carbon, resilient thermal infrastructure. This presentation explores how geothermal heat, absorption chillers, and thermal energy storage can be integrated to provide efficient, reliable cooling architecture for next-generation data centers. Geothermal systems can provide stable, low-carbon thermal energy to drive absorption chilling, reducing reliance on electrically intensive mechanical cooling and water use. Thermal energy storage further improves system performance by shifting loads, reducing peak power demand, enhancing operational flexibility, and supporting ride through capability during grid disruptions. Together, these technologies offer a pathway to decarbonize cooling, lower water use, reduce total energy consumption, and improve resilience for mission-critical AI infrastructure. In addition, their thermal efficiency and emissions-reduction attributes may improve eligibility for public incentives and subsidy programs tied to clean energy, grid flexibility, and industrial decarbonization."

Ms. Paola Perez (S&P Global)

Meeting the Next Wave of Power Demand The Role of Geothermal and SMRs in Clean Firm Energy

Prof. Dan Cohan (Rice, CEVE)

Modeling the potential for geothermal electricity and heat

Recent advances in geothermal technologies offer the potential to generate electricity and heat from a broader array of resources than ever before. This talk will present recently published modeling to explore how the viability of geothermal electricity and heat depends on the uncertain cost curves of emerging technologies. I will discuss opportunities and challenges for geothermal energy to play a growing role in supplying low-carbon electricity and heat.

ABSTRACTS (Poster Session)

Scan the QR code for access to poster abstracts

THANK YOU TO OUR IRESS SUPPORTERS

We would like to thank the many contributors to the IRESS endowment, including:

Mrs. Eleanor Cozier-Abdulah & Dr. Kenneth C. Abdulah ‘95
Ms. Cathleen Jo Trechter ‘77 & Dr. Ed K. Biegert ‘74 , ‘76, ‘78
Dr. Cheryl B. Mifflin ‘89 & Dr. Richard Mifflin ‘80
Ms. Dorothy E. Ballentine ‘95 & Dr. John S. Sneider ‘94
Ms. Layla Unger ‘00 & Mr. Michael R. Unger ‘01
John D. Jeffers ‘88 and Mary Edrich
Ms. Katrina Coterill Jenkins ‘91
Ms. Chingju Liu ‘85
Dr. Manik Talwani, Faculty Emeritus
Dr. Richard G. Gordon, Keck Professor of Geophysics & Department Chair
Dr. Peter A. Emmet ‘96

(and many other generous donors)

We would also like to particularly thank the IRESS 2026 Sponsors:

Ms. Dorothy E. Ballentine ‘95 & Dr. John S. Sneider ‘94
Rice Sustainability Institute
Rice Dept. of Earth, Environmental, and Planetary Sciences
Baker Institute, Center for Energy Studies