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NIH Biosketch available Online

Bio

BIO

Sadasivan (Sadas) Shankar is Research Technology Manager at SLAC National Laboratory and Adjunct Professor in Stanford Materials Science and Engineering. He was the first Margaret and Will Hearst Visiting Lecturer in Harvard University and the first Distinguished Scientist in Residence at the Harvard Institute of Applied Computational Sciences. He has co-instructed classes related to materials, computing, and sustainability and was awarded Harvard University Teaching Excellence Award. He is involved in research in materials, chemistry, and specialized AI methods for complex problems in physical and natural sciences, new frameworks for studying computing, and a new course on Translation: From Invention to Innovation. He is a co-founder and the Chief Scientist in Material Alchemy, a “last mile” translational and independent venture for sustainable design of materials.

Dr. Shankar was an invited speaker at the Vin Future “Science for Life” Symposium in Vietnam on Semiconductors Unleashed (2023), Clean-IT Conference in Germany on Revolutionize Digital Systems and AI (2023), Telluride Quantum Inspired Neuromorphic Computing Workshop (2023) on Limiting Energy Estimates for Classical and Quantum Information Processing, Argonne National Laboratory Director’s Special Colloquium on the Future of Computing (2022), panelist on Carnegie Science series on Brain and Computing (2020), lecturer in the Winter Course on Computational Brain Research in IIT-M-India (2020), invited participant in the Kavli Institute of Theoretical Physics program on Cellular Energetics in UCSB (2019), invited speaker to the Camille and Henry Dreyfus Foundation meeting on Machine Learning for problems in Chemistry and Materials Science (2019), a Senior Fellow in UCLA Institute of Pure and Applied Mathematics during the program on Machine Learning and Many-body Physics (2016), invited to the White House event for starting of the Materials Genome Initiative (2012), Invited speaker in Erwin Schrödinger International Institute for Mathematical Physics-Vienna (2007), Intel’s first Distinguished Lecturer in Caltech (1998) and MIT (1999). He has also given several colloquia and lectures in universities all over the world and his research was also featured in the publications Science (2012), TED (2013), IEEE Computer (2024), Nature Machine Intelligence (2022), Nature Physics (2022), Nature Communications (2024, 2025), Proceedings of the National Academy of Sciences (2021, 2025).

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Publications

PUBLICATIONS

- **Oxidative stress is a shared characteristic of ME/CFS and Long COVID.** *Proceedings of the National Academy of Sciences of the United States of America*
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