

KIPAC UPDATE 2022-2023

Special Edition for the KIPAC
20th Anniversary Symposium

20
YEARS

KAVLI INSTITUTE FOR PARTICLE
ASTROPHYSICS & COSMOLOGY

DEAR FRIENDS OF KIPAC,

It's amazing to be celebrating twenty years of KIPAC, and to take in all of the incredible accomplishments and discoveries made by its current and former members. I came to KIPAC just three years into its start as an assistant professor, and have been privileged to grow along with it, and to see it develop into the vibrant and exciting research institute it is today.



Here we highlight just a few recent goings-on at KIPAC, including our new post-baccalaureate program, our recent postdoctoral fellows, how the Rubin US Data Facility at SLAC will deal with the exabytes of data and million nightly alerts from the Vera C. Rubin Observatory's Legacy Survey of Space and Time, and our wonderful 20th anniversary Open House,

which brought thousands of families and community members to campus to hear about science and participate in activities.

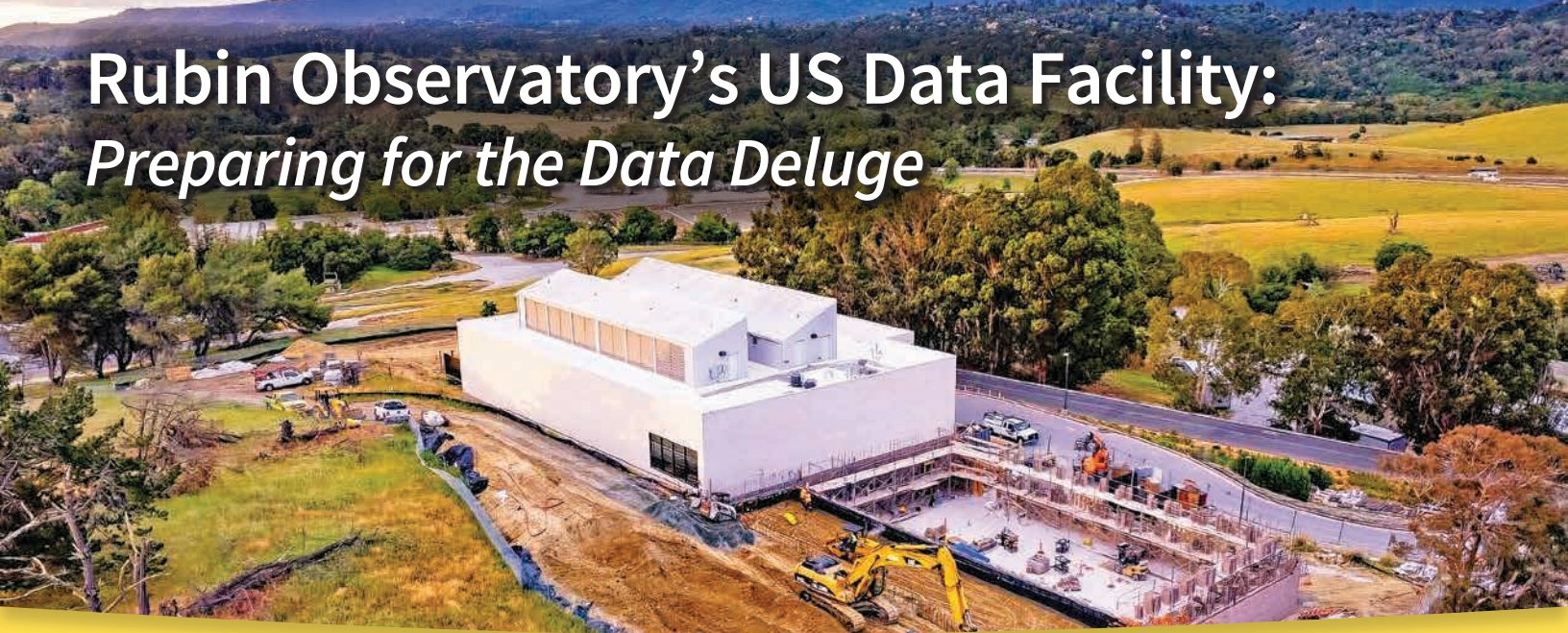
As I reflect on the last two decades, I am most struck by the community we have built and the incredible careers of the hundreds of early-career scientists that we have played a part in launching. Every day, KIPAC members are making incredible discoveries about the fundamental nature of our Universe, and building new collaborations to learn and innovate together.

Here's to the next two decades of discovery!

Risa Wechsler

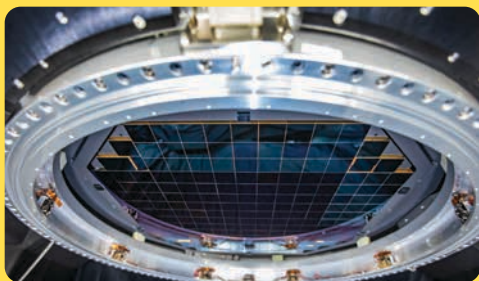
Director, Kavli Institute for Particle Astrophysics and Cosmology

Rubin Observatory's US Data Facility: Preparing for the Data Deluge



When the Vera C. Rubin Observatory opens to the night sky over Chile in late-2024, a gentle rain of photons will strike the 8.4-meter primary mirror, bounce off two more mirrors, and finally be focused by three lenses into a faint stream of light. That light will flow down onto the roughly two-foot-diameter focal plane of the giant, 3.2-gigapixel Legacy Survey of Space and Time (LSST) camera that has been assembled and tested at SLAC.

This is where all analogies to serenely flowing water dry up, because once that light hits the camera, the data spigot cranks open.



After each exposure, a fiber optics network will transfer a digital image to the servers at the LSST U.S. Data Facility (USDF) at SLAC within seven seconds. This will happen 2,000 times per night, adding 20,000 gigabytes nightly to USDF's archive. During its anticipated 10 years in operation, the archive will amass 5.5 million science images equivalent to 60 million gigabytes — which will balloon into 300 million gigabytes of data after processing. The USDF will also send nightly data to a sister site in France

to store backups and process the data into an annual data catalog for the astronomy community.

“The LSST will be a crash course in data wrangling, nobody at SLAC has ever dealt with data at this volume,” says Richard Dubois, KIPAC Senior Staff Scientist and Rubin Operations USDF lead. “We’re pushing a bunch of envelopes that stand to benefit many other programs in the future.”

Hosting this ocean of data isn't the only obstacle. A major goal of the LSST is to identify transient objects by comparing arriving images to previous images, flagging changes, and sending alerts out to the astronomy community — all within two minutes of receiving each image. In addition to these nightly alerts and the annual catalog, astronomers can request information about specific objects. This unprecedented tsunami of global data traffic is problematic for USDF's hardware.



Above: Construction of an annex to the Stanford Research Computing Facility began in November 2021 and is expected to be completed in the second half of 2023. (Olivier Bonin/SLAC National)

Left: The complete 3.2-gigapixel focal plane of the LSST Camera. (Jacqueline Orrell/SLAC National Accelerator Laboratory)

Below: Richard Dubois. (Jacqueline Orrell/SLAC National Accelerator Laboratory)

“Historically, when a facility announces a data release, the very next day a bajillion users show up at the door,” he adds. “But the USDF server doesn't have the bandwidth to handle more than hundreds of queries at once.”

USDF will transfer 20,000 gigabytes nightly between three continents, and manage a repository that will grow to 300 million gigabytes.

Being astronomers, the team looked to the skies for a solution — which is how they landed on the cloud, Google Cloud. By giving users access to a customized, cloud-based interface to the data with built-in analysis tools, USDF can adjust its resources to demand, while also adding an extra layer of protection between USDF's physical servers and external users.

A series of milestones remain. Data collected during the first light will be processed and delivered to the science community as a data preview. And then, in 2025, the USDF's final exam: the official start of the LSST.



Chelsea Bartram's goal as a Panofsky Fellow is to build a comprehensive axion dark matter program at SLAC. If it exists, the axion could have a mass in a range spanning 20 orders of magnitude. Finding a particle with such ambiguous properties is a challenge Bartram is tackling head-on. As a postdoc, she led the commissioning and data-taking operations on the Axion Dark Matter Experiment at the University of Washington. Eager to leverage new technologies in her search, she recently led the first search for axion dark matter using a Josephson Traveling Wave Parametric Amplifier, a quantum device that shows promise for broadband axion searches. Bartram is going after a particularly difficult-to-detect axion, while paving the way for future broadband dark matter explorations and discoveries. When she's not in the lab, Bartram enjoys running and playing the flute.



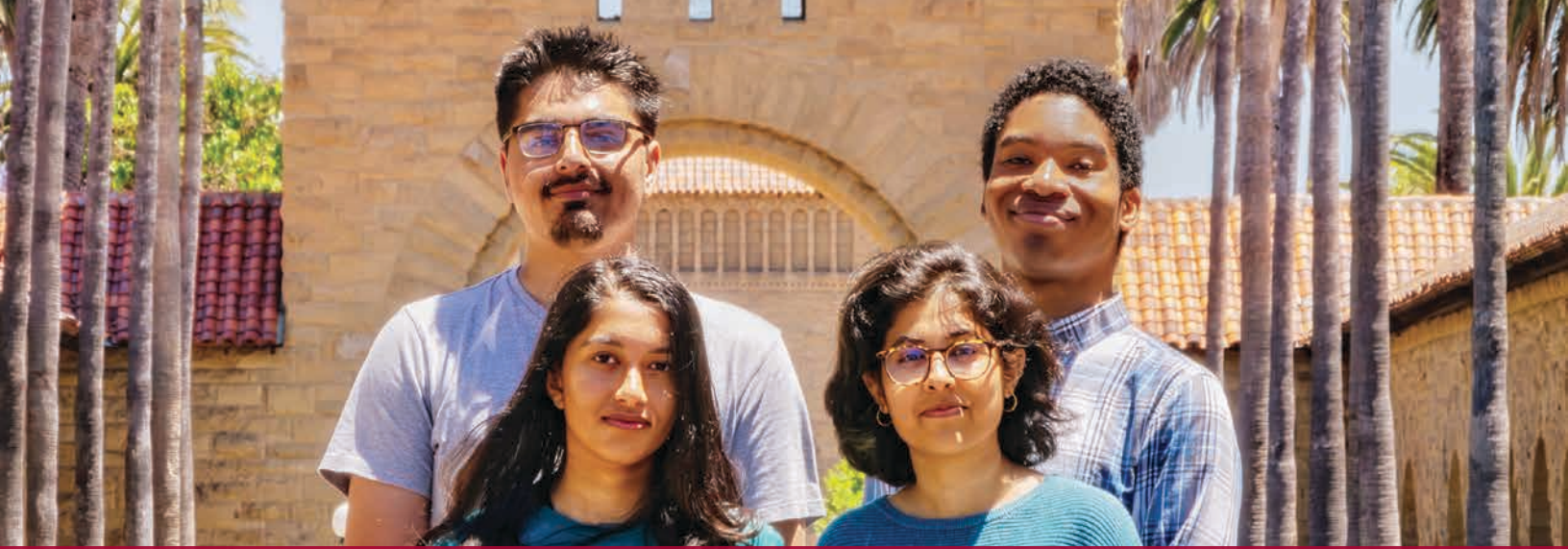
Kirit Karkare officially joined SLAC as an Associate Scientist in 2022, but he's been a collaborator with KIPAC CMB experiments since earning his bachelor's degree in 2011. Between completing his master's and PhD, and five deployments to Antarctica working on the BICEP experiment, Karkare also found time to develop SuperSpec — a novel on-chip millimeter-wave spectrometer. SuperSpec is integrated in his latest project, SPT-SLIM, which will be the most sensitive millimeter-wave line intensity mapping experiment to image large scale structures in three dimensions, with science observations expected to begin in January 2024. In his free time, Kirit doesn't limit himself to microwaves and typical weekend getaways like Antarctica: he enjoys cooking and taking frequent trips to faraway places.



Enrique Lopez-Rodriguez, Senior Research Scientist, specializes in investigating the role of magnetic fields in galactic evolution. He is currently leading the efforts of the Survey of Extragalactic Magnetism with SOFIA (SALSA), a SOFIA Legacy Program that aims to produce the first comprehensive survey of magnetic fields in the multi-phase interstellar medium of nearby galaxies. Lopez-Rodriguez was also recently awarded the NASA Astrophysical Decadal Survey Precursor Science Program to study the effects of magnetic fields on the cold phase of galactic outflows of starburst galaxies and design the next generation of far-infrared polarimeters for space-based telescopes from NASA. Lopez-Rodriguez also enjoys gardening, baking bread, and reading biographies.



Emmanuel Schaan, Staff Scientist at SLAC, is investigating the distribution of dark matter in galaxy clusters by using a multi-probe analysis approach that combines gravitational lensing data from large galaxy surveys with scattering measurements from high-resolution CMB maps. His work spans research across a variety of platforms, including the Dark Energy Spectroscopic Instrument, Simons Observatory, CMB-S4, and the Vera C. Rubin Observatory. Schaan actively participates in science outreach efforts with undergraduates, international communities, and incarcerated individuals, and also enjoys tinkering with side projects like building his own 10-inch f/5 Dobsonian telescope and a Star Wars-inspired BB-8 droid.



KIPAC Post-baccalaureate Fellowship

The KIPAC post-baccalaureate program welcomed its first cohort of four scholars in June 2023! This program offers recent college graduates a year-long, full-time research experience with KIPAC members to help make graduate programs in physics and astronomy more accessible to students from disadvantaged backgrounds.

Each post-bac scholar is paired with a research group to work on a cutting-edge project at KIPAC, while also attending seminars and informal discussions, participating in special-topic workshops, and sharing their passion for science through public engagement events. They will also each work with a non-research faculty advisor and a graduate student mentor, who help them create a personalized development plan to further their skills for success in graduate school.

We look forward to continuing this program and welcoming more scholars in future years!

Everett McArthur

received his B.A. in Astronomy at Columbia University. He is now

working with Prof. Risa Wechsler to understand the correlation between

the mass of the central supermassive black hole and that of the host galaxy by searching for quasars that act as gravitational lenses. Beyond academia, Everett enjoys playing the piano, sketching the places he visits, and he hopes to make hiking every weekend a habit.



Abraar Saleem graduated from San Francisco State University with a B.S. in Physics. He currently works with Dr. Kirit Karkare as a member of the CMB research group, employing cutting-edge tools to analyze the early light of the Universe and provide insight into its evolution since the Big



Bang. Beyond his research, Abraar finds balance in life through meditation, watching anime marathons, and spending quality time with family.

Noshin Tabassum

graduated from UC Santa Barbara with a B.A. in Physics. She is currently working with Dr. Noah



Kurinsky in the Dark Matter and Quantum Information Science group at SLAC,

using novel quantum architectures to detect dark matter in the meV-GeV range. In her free time, Noshin loves to surf, dive, do yoga, read, go on hikes, explore new recipes to cook, and bake.

Padma Venkatraman

graduated from UC Berkeley with a double degree in Astrophysics and Data Science. She is now working with Dr. Phil Marshall and the Strong Lensing Group at SLAC, on a data modeling and analysis pipeline that can be used to constrain



the Hubble Parameter using time delay cosmography. When not working, Padma

loves to read, listens to music and finds new restaurants close-by that are pocket friendly and have a good vegetarian selection!

New Postdoc Fellows 2022/2023



Sanskriti Das (KIPAC Fellow)

The circumgalactic medium (CGM) is the gas outside of the galactic disk that feeds the dark-matter halo of a galaxy, acting as its simultaneous fuel tank, landfill, and recycle hub of multiphase gas. I am interested in the baryon cycle: how the CGM regulates feeding and feedback in galaxies and affects their formation and evolution. The signal from the CGM is very faint compared to that from galactic disks, making it exceptionally challenging to detect. To combat this, my research uses data from telescopes of different wavelengths, including X-rays (Chandra, XMM-Newton, Suzaku), millimeter waves (Atacama Cosmology Telescope, Planck), and radio waves (Green Bank Telescope, Westerbork Synthesis Radio Telescope) to study the perplexing nature of the CGM.



Chiara Salemi (Porat Fellow)

I search for dark matter axions by building experiments that operate at nearly absolute zero and rely on quantum sensors to detect the tiny signals we expect when axions interact with a magnetic field. Axions weigh far less than any other known particles, but within their class exist both low- and high-mass particles. In the search for high-mass axions, I spent my first year at KIPAC primarily designing the first iteration of qubit sensors for the BREAD experiment. In the search for low-mass axions, I worked on the readout, calibration, and mechanical design of the DMRadio. I am eager to begin collecting science data from both DMRadio and the qubit sensors!



Mehrnoosh Tahani (Banting Fellow)

My research is on interstellar magnetic fields and their influence on astrophysical processes. I am developing techniques to characterize 3D interstellar magnetic fields, including their complete direction in three dimensions. The 3D fields of star-forming clouds explain how the fields were shaped and evolve over time, revealing the formation and evolutionary path of their clouds. I am looking forward to mapping the 3D magnetic fields of more regions with observations from the science groups I am a member of, including the Fred Young Submillimeter Telescope (CCAT-Prime), James Clerk Maxwell Telescope, Australian Square Kilometer Array pathfinder, and the Square Kilometer Array Observatory.



Cheng Zhang (Porat Fellow)

I am searching for evidence of cosmic inflation through B-mode polarization observations in the CMB, an important signature of primordial gravitational waves predicted by inflation. As a member of the BICEP/Keck collaboration, I build and calibrate telescopes that capture B-mode signals in the sky with the tightest constraints on the tensor-to-scalar ratio r to help us more accurately test different inflation models. I am also leading the commission of the latest generation high frequency receiver, BICEP Array 4, which will be the most powerful “CMB de-dust machine” on the planet. Its data will further tighten the constraints on r and deepen our understanding of physics in the infant Universe.

KIPAC COMMUNITY DAY

Celebrating Astronomy With the Bay Area Community

On April 15, 2023, KIPAC kicked off its 20th anniversary celebration with a special public event: the KIPAC Community Day. The event featured 20 stations of live demonstrations, experiments, and hands-on activities on a wide variety of astro-related topics, such as solar viewing, infrared camera, gravity simulation, and telescope design. A series of six mini science lectures was also running in parallel, introducing the latest discoveries made by KIPAC in the field of astrophysics. Around 3,500 people attended the event, including Stanford affiliates and many local families with kids.

The Community Day was a day of fun not only for the local community but also for the participating groups. More than 120 volunteers, most of which were KIPAC members and partners, enthusiastically shared their passion for science and showcased various discoveries made by KIPAC members in the past 20 years.

“The KIPAC Community Day was really cool and I appreciated how it catered towards people of all ages.” said Allen Wong, an alumna of University of California, Riverside, who was visiting the Bay Area on that day. “This was an event that I would have loved as a kid but even now, as an adult, I still learned a lot and definitely hope to come back in the future.”

Families and young learners enjoying astronomy via various hands-on activities. (SaM Fontejon/ Fontejon Photography)

Professor Tom Abel giving a mini lecture on the first stars in the Universe. (SaM Fontejon/ Fontejon Photography)



KIPAC Alumni Profiles

Where Are They Now?

List primarily based on responses to KIPAC alumni surveys in the past three years.

Jelle Aalbers (Kavli Fellow, 2020-2023)
Assistant Professor, University of Groningen in the Netherlands

Susmita Adhikari (KIPAC Postdoctoral Fellow, 2017-2020)
Assistant Professor, Indian Institutes of Science Education and Research, Pune in India

Marco Ajello (KIPAC Postdoctoral Scholar, 2008-2012)
Assistant Professor, Clemson University

Mustafa Amin (Stanford Ph.D. '08; faculty advisor: Roger Blandford)
Associate Professor, Rice University

Alex Amon (Kavli Fellow 2018-21)
Assistant Professor, Princeton University

Richard Anantua (Stanford Ph.D. '16; faculty advisor: Roger Blandford)
Assistant Professor, University of Texas at San Antonio

Tsuguo Aramaki (KIPAC Postdoctoral Scholar, 2014-2021)
Assistant Professor, Northeastern University

Arka Banerjee (KIPAC Postdoctoral Fellow, 2017-2020)
Assistant Professor, Indian Institutes of Science Education and Research, Pune in India

Matteo Barnabè (KIPAC Postdoctoral Scholar, 2009-2012)
Head of Product, DFocus Foundation

Kirk Barrow (Porat Fellow, 2019-2021)
Assistant Professor, University of Illinois Urbana-Champaign

Keith Bechtol (Stanford Ph.D. '12; faculty advisor: Stefan Funk)
Associate Professor, University of Wisconsin-Madison

Matthew Becker (KIPAC Postdoctoral Scholar, 2013-2016)
Staff Scientist, Argonne National Laboratory

Peter Behroozi (Stanford Ph.D. '12; faculty advisor: Risa Wechsler)
Associate Professor, University of Arizona

Simon Birrer (Kavli Fellow, 2019-2022)
Assistant Professor, Stony Brook University

Silvia Bonoli (KIPAC Postdoctoral Scholar, 2012-2013)
Research Fellow, Donostia International Physics Center in Spain

Maruša Bradač (KIPAC Postdoctoral Fellow 2004-2007)
Professor, University of Ljubljana in Slovenia

Rebecca Canning (Einstein Fellow at KIPAC, 2012-2020)
Senior Lecturer, University of Portsmouth

Jennifer Carson (KIPAC Postdoctoral Scholar, 2005-2007)
Professor, Santa Monica College

Chihway Chang (Stanford Ph.D. '13; faculty advisor: Steven Kahn)
Assistant Professor, University of Chicago

Jeffrey Chilcote (KIPAC Postdoctoral Scholar, 2017-2018)
Assistant Professor, University of Notre Dame

Dongwoo Chung (Stanford Ph.D. '20; faculty advisor: Sarah Church)
Research Fellow, University of Toronto in Canada

Johann Cohen-Tanugi (KIPAC Postdoctoral Scholar, 2004-2008)
Researcher, Centre National de la Recherche Scientifique in France

Jodi Cooley (KIPAC Postdoctoral Scholar, 2004-2009)
Professor and Executive Director of SNOLAB, Queen's University

Carlos Cunha (Kavli Fellow, 2011-2014)
Senior Data Scientist, Bosch Center for Artificial Intelligence

Ian Czekala (Porat Fellow, 2016-2018)
Lecturer, University of St. Andrews in Scotland

Lixin (Jane) Dai (Stanford Ph.D. '12; faculty advisor: Roger Blandford)
Associate Professor, University of Hong Kong in China

Christopher Davis (Stanford Ph.D. '18; faculty advisor: Aaron Roodman)
Software Engineer at Waymo, an autonomous driving technology company

Mia de los Reyes (Stanford Science Fellow, 2022-2023)
Assistant Professor, Amherst College

Alis Deason (Porat Fellow, 2015-2016)
Associate Professor and Royal Society University Research Fellow, Durham University

Peter den Hartog (KIPAC Postdoctoral Scholar, 2009-2014)
Founder & CEO of HAL24K Agri; Co-founder and Chief Science Officer of HAL24K, a data-intelligence company

Harry Desmond (Stanford Ph.D. '17; faculty advisor: Risa Wechsler)
Royal Society University Research Fellow, Institute of Cosmology and Gravitation, University of Portsmouth

Kiruthika Devaraj (KIPAC Postdoctoral Scholar, 2011-2015)
Vice President of Engineering at Planet Labs, a company that delivers satellite imagery data

Eduardo do Couto e Silva (SLAC Staff Scientist)
Director, Brazilian Biorenewables National Laboratory

Alexander Drlica-Wagner (Stanford Ph.D. '13; faculty advisor: Elliot Bloom)
Scientist, Fermi National Accelerator Laboratory

William East (KIPAC Postdoctoral Fellow, 2013-2016)
Junior Faculty, Perimeter Institute for Theoretical Physics

Steven Ehlert (Stanford Ph.D. '13; faculty advisor: Steven Allen)
Research AST, NASA

Daniel Engovatov (Stanford Ph.D. '11; faculty advisor: Elliot Bloom)
Staff Engineer at Google

Teruaki Enoto (KIPAC Postdoctoral Scholar, 2010-2012)
Associate Professor, Kyoto University; Team Leader at the RIKEN Cluster for Pioneering Research in Japan

Andres Escala (KIPAC Postdoctoral Scholar, 2006-2009)
Associate Professor, University of Chile

Ke Fang (Einstein Fellow at KIPAC 2018-2020)
Assistant Professor, University of Wisconsin

Katherine Follette (Sagan Fellow at KIPAC, 2015-2016)
Assistant Professor, Amherst College

Adi Foord (Porat Fellow, 2010-2023)
Assistant Professor, University of Maryland Baltimore County

Simon Foreman (Stanford Ph.D. '16; faculty advisor: Leonardo Senatore)
Assistant Professor, Arizona State University

Andrei Frolov (KIPAC Postdoctoral Scholar, 2003-2006)
Professor, Simon Fraser University in Canada

Amy Furniss (KIPAC Postdoctoral Scholar, 2013-2016)
Assistant Professor, Cal State University, East Bay

Brian Gerke (KIPAC Postdoctoral Fellow, 2007-2011)
Director of Forecasting and Methods and Recurve, a company that helps utilities transition to renewable energy

Jonathan Granot (KIPAC Postdoctoral Scholar, 2004-2007)
Professor, Open University of Israel

Gregory Green (Porat Fellow, 2016-2019)
Sofja Kovalevskaja group leader, Max Planck Institute for Astronomy in Heidelberg, Germany

Daniel Gruen (Einstein Fellow at KIPAC; Panofsky Fellow, 2015-2019)
Chair of astrophysics, cosmology, and artificial intelligence, International Max-Planck Research School on Astrophysics in Munich, Germany

Oliver Hahn (KIPAC Postdoctoral Fellow, 2009-2012)
Professor, University of Vienna in Austria

Mark Hertzberg (KIPAC Postdoctoral Scholar, 2010-2012)
Associate Professor, Tufts University

Yashar Hezaveh (Hubble Fellow at KIPAC, 2013-2017)
Assistant Professor, University of Montreal in Canada

Lea Hirsch (Kavli Fellow, 2018-2021)
Assistant Professor, University of Toronto in Canada

Julie Hlavacek-Larrondo (Einstein Fellow at KIPAC, 2012-2014)
Associate Professor, University of Montreal in Canada

Wynn Ho (KIPAC Postdoctoral Scholar, 2003-2006)
Research Associate, Haverford College

Yoshiyuki Inoue (KIPAC Postdoctoral Scholar, 2012-2014)
Associate Professor, Osaka University in Japan

Saurabh Jha (Panofsky Fellow, 2006-2007)
Distinguished Professor, Rutgers University

Jae Hwan Kang (Stanford Ph.D. '20; faculty advisor: Chao-Lin Kuo)
Postdoctoral Scholar, California Institute of Technology

Stelios Kazantzidis (KIPAC Postdoctoral Fellow, 2006-2008)
Assistant Professor, National and Kapodistrian University of Athens in Greece

Ryan Keisler (Kavli Fellow, 2013-2015)
Staff Data Scientist at KoBold Metals, a mineral exploration company

Patrick Kelly (Stanford Ph.D. '12; faculty advisor: David Burke)
Assistant Professor, University of Minnesota

Ji-hoon Kim (Einstein Fellow at KIPAC, 2016-2017)
Associate Professor, Seoul National University in South Korea

Elisabeth Krause (Kavli Fellow, 2015-2017)
Associate Professor, University of Arizona

KIPAC Alumni Profiles [Continued]

Noah Kurinsky (Stanford Ph.D. '18; faculty advisor: Blas Cabrera)
Associate Staff Scientist, SLAC National Accelerator Laboratory

Ranjan Laha (KIPAC Postdoctoral Fellow, 2014-2017)
Assistant Professor, Indian Institute of Science, Bangalore in India

Patricia Larkoski (Stanford Ph.D. '13; faculty advisor: Sarah Church)
Lead Electrical Engineer at MITRE, a non-profit that operates federally funded research and development centers

Shiu-Hang (Herman) Lee (Stanford Ph.D. '11; faculty advisor: Tune Kamae)
Junior Associate Professor, Kyoto University in Japan

Ioannis Liodakis (KIPAC Postdoctoral Fellow, 2017-2020)
Postdoctoral Fellow, NASA Marshall Space Flight Center

Maxim Lyutikov (KIPAC Postdoctoral Scholar, 2004)
Professor, Purdue University

Yao-Yuan Mao (Stanford Ph.D. '16; faculty advisor: Risa Wechsler)
Assistant Professor, University of Utah

Francesco Massaro (KIPAC Postdoctoral Scholar, 2011-2013)
Associate Professor, University of Turin in Italy

Phillip Mertsch (Kavli Fellow, 2012-2016)
Junior Professor, RWTH Aachen University in Germany

Manuel Meyer (Fermi Humboldt Fellow, 2017-2019)
Associate Professor, University of Southern Denmark

Evan Million (Stanford Ph.D. '10; faculty advisor: Steven Allen)
Senior Professional Staff, The Johns Hopkins University Applied Physics Laboratory

Eric Morganson (Stanford Ph.D. '10; faculty advisor: Roger Blandford)
Research Assistant Professor, University of Illinois-Urbana-Champaign

Jessica Muir (Porat Fellow, 2018-2021)
Postdoctoral Fellow, Perimeter Institute for Theoretical Physics

Simona Murgia (KIPAC Postdoctoral Scholar, 2007-2012)
Professor, University of California, Irvine

Ethan Nadler (Stanford Ph.D. '21; faculty advisor: Risa Wechsler)
Joint Postdoctoral Fellow, Carnegie Observatories & University of Southern California

Toshiya Namikawa (KIPAC Postdoctoral Scholar, 2016-2017)
Project Assistant Professor, University of Tokyo in Japan

Chi Yung Ng (Stanford Ph.D. '16; faculty advisor: Roger Romani)
Associate Professor, University of Hong Kong in China

Eric Nielsen (KIPAC Postdoctoral Scholar, 2017-2020)
Assistant Professor, New Mexico State University

Anna Ogorzalek (Stanford Ph.D. '19; faculty advisor: Steven Allen)
Visiting Assistant Research Scientist, NASA Goddard Space Flight Center

Masamune Oguri (KIPAC Postdoctoral Scholar, 2006-2009)
Professor, Chiba University in Japan

Jeffrey Oishi (KIPAC Postdoctoral Scholar, 2010-2012)
Associate Professor, Bates College

Kimberly Palladino (KIPAC Research Associate, 2014-2020)
Associate Professor, University of Oxford

David Paneque (KIPAC Postdoctoral Scholar, 2012-2014)
Senior Scientist, Max Planck Institute for Physics in Munich, Germany

Ashley Perko (Stanford Ph.D. '17; faculty advisor: Leonardo Senatore)
Assistant Professor, Oglethorpe University

Laurence Perreault Levasseur (KIPAC Postdoctoral Fellow, 2015-2018)
Assistant Professor, University of Montreal in Canada

John Peterson (KIPAC Postdoctoral Scholar, 2003-2006)
Associate Professor, Purdue University

Arran Phipps (Kavli Fellow, 2016-2020)
Assistant Professor, California State University, East Bay

Devon Powell (Stanford Ph.D. '18; faculty advisor: Tom Abel)
Postdoctoral Scholar, Max Planck Institute for Astrophysics in Garching, Germany

Giuseppe Puglisi (KIPAC Postdoctoral Scholar, 2018-2019)
Researcher, University of Catania in Italy

Matt Pyle (Stanford Ph.D. '12; faculty advisor: Blas Cabrera)
Assistant Professor, University of California, Berkeley

Eduardo Rozo (Panofsky Fellow, 2012-2014)
Associate Professor, University of Arizona

Masao Sako (KIPAC Postdoctoral Scholar, 2003-2006)
Professor, University of Pennsylvania

Miguel Sánchez-Conde (KIPAC Postdoctoral Scholar, 2011-2014)
Associate Professor, Autonomous University of Madrid in Spain

Tim Schrabback (KIPAC Postdoctoral Fellow, 2010-2011)
Professor, Innsbruck University in Austria

Neelima Sehgal (KIPAC Postdoctoral Fellow, 2008-2011)
Associate Professor, Stony Brook University

Marina Shmakova (KIPAC Postdoctoral Scholar, 2002-2007)
Senior Data Scientist at VMware, a multi-cloud service provider for mobile applications

Lance Simms (Stanford Ph.D. '10; faculty advisor: Steven Kahn)
Physicist and Firmware & Software Engineer, Lawrence Livermore National Laboratory

Jack Singal (KIPAC Research Associate, 2007-2013):
Associate Professor, University of Richmond

Krista Lynne Smith (Einstein Fellow at KIPAC, 2017-2020)
Assistant Professor, Southern Methodist University

Anatoly Spitkovsky (KIPAC Postdoctoral Scholar, 2002-2005)
Professor, Princeton University

Łukasz Stawarz (KIPAC Research Associate, 2006-2010)
Associate Professor, Astronomical Observatory of the Jagiellonian University in Poland

Kelly Stifter (Stanford Ph.D. '21; faculty advisor: Daniel Akerib)
Panofsky Fellow, SLAC National Accelerator Laboratory

Louis Strigari (KIPAC Postdoctoral Scholar, 2018-2013)
Assistant Professor, Texas A&M University

Takaaki Tanaka (KIPAC Postdoctoral Scholar, 2007-2012)
Associate Professor, Konan University in Japan

Luigi Tibaldo (KIPAC Postdoctoral Scholar, 2012-2015)
Staff Astronomer and Lecturer, Institut de Recherche en Astrophysique et Planétologie in France

Wing To (KIPAC Postdoctoral Scholar, 2014-2016)
Professor, California State University, Stanislaus

Samuel Totorica (Stanford Ph.D. '18; faculty advisor: Tom Abel)
Associate Research Scholar, Princeton University

Matthew Turk (Stanford Ph.D. '19; faculty advisor: Tom Abel)
Assistant Professor, University of Illinois at Urbana-Champaign

Yasunobu Uchiyama (Panofsky Fellow, 2008)
Professor, Rikkyo University in Japan

Justin Vandenbroucke (Kavli Fellow and Einstein Fellow, 2009-2012)
Assistant Professor, University of Wisconsin

Anja von der Linden (KIPAC Postdoctoral Scholar, 2007-2015)
Assistant Professor, Stony Brook University

Kyle Watters (Stanford Ph.D. '10; faculty advisor: Grzegorz Madejski)
Professor, California State University, Sacramento

Norbert Werner (Einstein Fellow at KIPAC, 2008-2016)
Professor, Masaryk University in Czechia

John Wise (Stanford Ph.D. '07; faculty advisor: Tom Abel)
Professor, Georgia Institute of Technology

Radoslaw Wojtak (Porat Fellow, 2014-2017)
Associate Professor, Niels Bohr Institute of the University of Copenhagen in Denmark

Adam Wright (Stanford Ph.D. '19; faculty advisor: Steven Allen)
Assistant Professor, Milwaukee School of Engineering

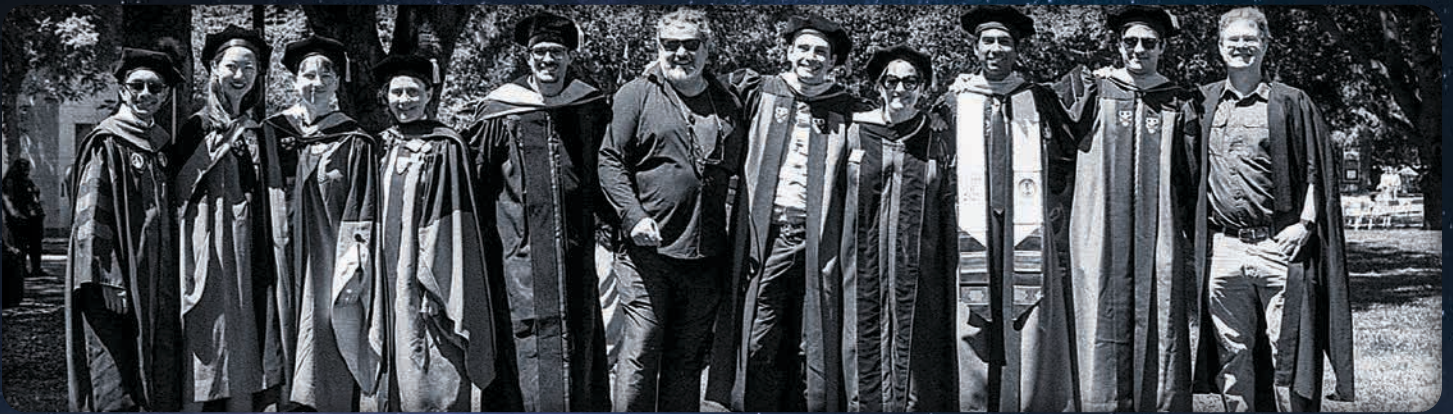
Hao-Yi (Heidi) Wu (Stanford Ph.D. '11; faculty advisor: Risa Wechsler)
Assistant Professor, Boise State University

Wai Ling "Kimmy" Wu (Stanford Ph.D. '15; faculty advisor: Chao-Lin Kuo)
Panofsky Fellow, SLAC National Accelerator Laboratory

Ed Young (Kavli Fellow, 2010-2011)
Software Engineer, Charm Industrial

Nadia Zakamska (Kavli Fellow, 2010-2011)
Professor, Johns Hopkins University

Irina Zhuravleva (KIPAC Postdoctoral Scholar, 2012-2018)
Assistant Professor, University of Chicago



SLAC NATIONAL ACCELERATOR LABORATORY

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