

# SUNAO SUGIYAMA

CV, Compiled on January 30, 2026

## CONTACT INFORMATION

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<b>GitHub</b>	<a href="https://github.com/git-sunao">https://github.com/git-sunao</a>

## RESEARCH INTERESTS

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**Theoretical and Observational cosmology:** *large-scale structure of the Universe, gravitational weak/micro lensing, primordial black hole*

## COLLABORATIONS

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Subaru HSC weak lensing working group, member (2021-present, **co-chair** since 2024Nov)  
Dark Energy Survey (DES), member (2024-present)

## POSITIONS

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<b>Current</b>	<b>Postdoctoral researcher,</b> University of Pennsylvania, Philadelphia, the United States Mentor: Prof. Bhuvnesh Jain	Sep. 2023 – present
<b>Past</b>	<b>JSPS Overseas Research Fellow,</b> University of Pennsylvania, Philadelphia, the United States <b>Postdoctoral researcher,</b> Kavli IPMU, Chiba, Japan Mentor: Prof. Masahiro Takada, funded partially by <a href="#">beyond AI</a>	Sep. 2023 – Aug. 2025 Apr. 2023 – Aug. 2023
	<b>JSPS Research Fellowships for Young Scientists,</b> Kavli IPMU, Chiba, Japan	Apr. 2021 – Mar. 2023
<b>Educations</b>	<b>University of Tokyo, Tokyo, Japan,</b> Ph.D. course in Physics Dissertation: <i>“Joint cosmology analyses using gravitational weak lensing data from Subaru Hyper Suprime-Cam”</i> Supervisor: Prof. Masahiro Takada <b>University of Tokyo, Tokyo, Japan,</b> M.S. in Physics Dissertation: <i>“Validation of cosmological analysis based on perturbation theory for wide-field galaxy survey”</i> Supervisor: Prof. Masahiro Takada <b>University of Tokyo, Tokyo, Japan,</b> B.A. in Physics	Apr. 2020 – Mar. 2023 Apr. 2018 – Mar. 2020 Apr. 2014 – Mar. 2018

## GRANT & AWARDS

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Grant-in-Aid for JSPS Research Fellows (DC2), Japan Society for the Promotion of Science, Apr. 2021 – Mar. 2023

**The School of Science Encouragement Award (Doctoral program)**, University of Tokyo, the School of Science, Mar. 2023

## TEACHING

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Collaborative coding: git and github, **CD3 symposium** 2023, Kavli IPMU

Coadvised students: Rafael C. H. Gomes (a PhD student at UPenn since 2023), Noriaki Nakasawa (a master student at the University of Nagoya, 2022)

## PROFESSIONAL ACTIVITIES

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<b>Society</b>	The Astronomical Society of Japan (ASJ), 2018 – present The Physical Society of Japan (JPS), 2022 – present
<b>Seminar/Workshop/Conference</b>	IPMU weekly lunch seminar (co-organizer), 2019 – 2021 HSC weaklensing mini workshop (organizer), Aug. 2022 Sesto 2025 - Tracing Cosmic Evolution with Galaxy Clusters V (SOC), 2025
<b>Referee</b>	International Journal of Modern Physics D The Astrophysical Journal American Astronomical Society Journals Journal of Cosmology and Astroparticle Physics
<b>Computing</b>	Developer of <b>fft-extended-source</b> , <b>fastnc</b> , <b>dark emulator</b> as a part of <b>Dark Quest Project</b> I can work with C, C++, Python, <b>HSC pipeline</b> (for image analysis)
<b>Accepted Observation</b>	<b>PI</b> of <b>Definitive search for PBH dark matter in the multiverse cosmology with HSC</b> co-I of <b>Survey of M31 eclipsing binaries: Toward a 1% distance measurement</b>

## PUBLIC ENGAGEMENT AND OUTREACH

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Apperence on *Cosmic Front, Primordial Black Hole: the master key of the Universe (title in Japanese)* produced by NHK, 2021

Interviewed by Quanta Magazine on *Clashing Cosmic Numbers Challenge Our Best Theory of the Universe*, 2024

Interviewed by Asahi Shimbun on *Breakdown in the standard model of the Universe? An analysis using precise dark matter “map” (title in Japanese)*, 2024

## LIST OF PUBLICATIONS, TALKS, AND PRESS RELEASES

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The list of publications, talks, and press releases is available [here](#).