

SUMEET KULKARNI

Ph.D. Candidate, The University of Mississippi

+1 662-202-4100

sskulkar@go.olemiss.edu

Oxford, MS

<https://sumeetkul.github.io/>

@sumeet_kul

First-generation Astrophysics PhD candidate and an aspiring science communicator with vast experience in professional science writing, podcasting, and video production, as well as strong editing skills for the same.

EDUCATION

Doctor of Philosophy (Ph.D.) Candidate, Physics & M. Ed., Science Curriculum and Instruction

The University of Mississippi

August 2017 – Present Oxford, Mississippi

Bachelor of Science & Master of Science (Integrated B.S.-M.S.)

Indian Institute of Science Education and Research (IISER)

Aug 2012 – May 2017 Pune, India

SCIENCE WRITING

Positions

- Author and Editor, **Astrobites** (January 2020-present)
I am a regular author for Astrobites, a team of astronomy graduate students who write and edit science summaries of new research papers aimed at undergraduate students. Link to all posts:
<https://astrobites.org/author/skulkarni/>
- Science Journalism Intern, **India Bioscience** (Summer 2019)
I got introduced to the craft of science writing and wrote 3 News articles and 2 Features during this 3-month remote internship with India's leading life sciences communication outlet. Link to all articles:
<https://indiabioscience.org/authors/SumeetKulkarni>
- Editor, **LIGO Magazine** (December 2020-present)
As part of the team of editors for the bi-annual magazine of the LIGO Scientific Collaboration, I commission and edit stories about science as well as the social and professional aspects of life in a big collaboration spanning over 18 countries worldwide.

Selected Media Clips

Outlet names are clickable links

- **Scientific American**: Mind the [Mass] Gap (October 28, 2019)
- **The Wire**: Scientists Discover How a Tiny Freshwater Animal Performs a Somersault (April 2021)
- **India Bioscience**: My science journalism internship: Five things I learned (August 2021)
- **India Bioscience**: The Machine Learning Research Revolution (January 2020)
- **India Bioscience**: Scientists capture the misfolding of rogue proteins in action (September 2019)
- **AAS Nova**: Peering Through the Lens of the Milky Way Supermassive Black Hole (November 2021)
- **AAS Nova**: Lack of Spacetime Squiggles Limit How Much a Pulsar Can Be Squashed (September 2020)
- **Astrobites**: Unique Hypernova revealed by a Star Rising from its Ashes (November 2021)
- **Astrobites**: A Long Drive to Outer Space? Put Gravitational Waves on the Radio! (February 2021)
- **Astrobites**: NANOGrav may have heard hints of the spacetime symphony's bassline hum (January 2021)
- **Astrobites**: Where can Black Holes that "should not exist" live? (November 2020)
- **Astrobites**: (Stellar) Social Distancing in the Milky Way Bulge (June 2020)
- **I,Science**: 'Extreme Energies: Gravitational Waves', a guest feature for the Autumn '19 edition of the science magazine of Imperial College, London (December 2019)

For a complete list of my writing clips, visit my webpage at <https://sumeetkul.github.io/writing>

MULTIMEDIA SKILLS

Graphics: Adobe Illustrator, Photoshop \LaTeX

Audio/Video: Audacity, Adobe Premier Rush

Microsoft Office Suite Photography

Web: HTML5, WordPress

LANGUAGES

English

Marathi

Hindi

French



PROFESSIONAL SOCIETY MEMBERSHIPS

1. American Physical Society (APS)
2. American Association for the Advancement of Science (AAAS)
3. National Association for Science Writers (NASW)
4. Mississippi Academy of Sciences (MAS)

SCIENCE COMMUNICATION & OUTREACH

FameLab

Winner, 3rd prize

📅 February 2017

📍 Cheltenham, UK

- Famelab: 'The world's biggest Science Communication competition' by the British Council challenges participants to Communicate Science in 3 minutes without using any visual aids
- My presentation titled "Cosmic Fireworks" explained how two neutron stars collided in a *Kilonova* explosion, using a pair of balloons filled with confetti. By Winning the 3rd prize here, represented India at the Cheltenham Science Festival. Story in *The Times of India*.

Winner, 3MT®

📅 October 2021

📍 University of Mississippi

- Won first place in the Doctoral Category of the 3-Minute Thesis competition organized by the University of Mississippi Graduate School.

Oxford Science Café

📅 December 2018-present

📍 Oxford, MS, USA

- Co-organizer of the Oxford Science Cafe: monthly public talks and conversations about science for the local community in Oxford, and the only event of its kind in north Mississippi.
- Roles: Emceeding for the main event, identifying and inviting speakers, securing funds, publicity.

Ssippin' Science Podcast

📅 March 2020-present

📍 Podcastland

- Creator and host of *Ssippin' Science*, the only science podcast in Mississippi in which we share the Oxford Science cafe talks with a broader audience in the form of interviews and soundbites; Available to listen on **Spotify**, **Apple Podcasts** or **Google Podcasts**.

Conference on Science Communication (Comscicon)

📅 September 2019-March 2021

📍 College Park MD, Athens GA

- Comscicon is a series of workshops focused on the communication of complex and technical concepts organized by graduate students, for graduate students
- Selected to attend (i) Comscicon-AIP at the American Institute of Physics (September 2019), (ii) Comscicon-Atlanta (March 2020), (iii) Comscicon-SciWri at the National Association for Science Writers (NASW, October 2021).

- **Chaired** the 6-member organizing committee for the regional **Comscicon-Atlanta** (conducted virtually in March 2021); designed panels and workshops for graduate students interested in science communication across the southeastern USA.

University Outreach

📅 August 2017 - present

📍 University of Mississippi

- **Spooky Physics Night:** Dressed up in nerdy costumes and presented fun, spooky physics demos to kids every Halloween night at the UM Department of Physics.
- **Astronomy Open House:** Conducted star-gazing and planet-hunting sessions for the monthly open house at the Kennon observatory, The University of Mississippi.

Invited Talks

- The British Council's *Cafe Scientifique*: 'The Rise of Artificial Intelligence in Astronomy' at the British Library, Pune. Cafe Scientifique provides a unique forum for the discussion of scientific issues in a way that is much more relaxed, informal and accessible than a public lecture. (January 5, 2018)

TEACHING EXPERIENCE

Teaching Assistant, Astronomy

📅 August 2017-present

- Taught the lab component of the Astronomy 103/104 courses comprising mostly of non-STEM majors. The labs have an emphasis on teaching over grading.
- Guided Astrophotography sessions for Honors students using the 17-inch telescope and professional-grade imaging equipment at the Kennon Observatory, University of Mississippi.

PEER-REVIEWED ACADEMIC ARTICLES

1. Astrophysics:

- **Sumeet Kulkarni** et al. (May 2019). "Random projections in gravitational wave searches of compact binaries". In: *Phys. Rev. D* 99 (10), p. 101503. DOI: 10.1103/PhysRevD.99.101503. URL: <https://link.aps.org/doi/10.1103/PhysRevD.99.101503>.
- Kentaro Mogushi, **Sumeet Kulkarni** et al. (June 2021). "NNETFIX: an artificial neural network-based denoising engine for gravitational-wave signals". In: *Machine Learning: Science and Technology* 2.3, p. 035018. DOI: 10.1088/2632-2153/abea69. URL: <https://doi.org/10.1088/2632-2153/abea69>.
- Nathan McDaniel, **Sumeet Kulkarni** and Anuradha Gupta (2021). *Inferring spin tilts at formation from gravitational wave observations of binary black holes: Interfacing precession-averaged and orbit-averaged spin evolution*. arXiv: 2107.11902 [astro-ph.HE].
- Singhal, Akshat and others including **Sumeet Kulkarni** (Aug. 2021). "Deep co-added sky from Catalina Sky Survey images". In: *Monthly Notices of the Royal Astronomical Society* 507.4, pp. 4983–4996. ISSN: 0035-8711. DOI: 10.1093/mnras/stab2246. URL: <https://doi.org/10.1093/mnras/stab2246>.

2. Science Education:

- **Sumeet Kulkarni** and Brooke Whitworth. (Accepted for publication, January 2022). Podcasts in Science Classrooms: Storytelling For all Ears! In: *The Physics Teacher*, article ref. no. TPT20-AR-00818R

LIST OF SCICOMM TRAINING / WORKSHOPS

1. Comscicon-SciWri

📅 October 2021

📍 Virtual

- This workshop accompanied my participation in the National Association of Science Writers (NASW) annual meeting, 2021.
- Produced a podcast on *Wildfire Smoke and Health*, to be published on the NASW Student Newsroom as a part of Comscicon-SciWri 2021.

2. Comscicon-Atlanta (**Organizer**, 2021)

📅 March 2021

📍 Virtual

- Co-chair of the organizing committee for Comscicon-Atl '21
- Hosted Atlanta-based journalist Maryn Mckenna as Keynote Speaker
- Organized and moderated a panel discussion titled *Interviewing for Science Stories*

3. Comscicon-Atlanta

📅 March 2020

📍 Athens, GA, USA

- Started my podcast, *Ssippin' Science* through the conference write-a-thon

4. Comscicon-AIP

📅 September 2019

📍 College Park, MD, USA

- Presented a poster on the Humans of LIGO project; Got a clip in Scientific American through the conference write-a-thon

5. The Cheltenham Science Festival

📅 June 2017

📍 Cheltenham, UK

- Represented India at Famelab international, 2019

6. EURAXESS: *Science Out Of The Lab*

📅 August 2015

📍 Mumbai, India

- Finalist in the EURAXESS National Science Slam

ASTROPHOTOGRAPHY

- My most recent hobby has been clicking beautiful pictures of the Milky Way, the Moon, the Planets and other starscapes. Check out my Astrophotography portfolio here:
<https://sumeet-astrophoto.myportfolio.com/>
 - My pictures have been selected for a dedicated exhibit at the University of Mississippi Library from February-June 2022.
 - Blog post on my personal webpage on how I chased and captured comet NEOWISE in Summer 2020:
<https://sumeetkul.github.io/blog/neowise/>
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