Tomáš Šoltinský

Curriculur	m Vitae	 tomas.soltinsky@inaf.it tomassoltinsky.github.io
	Employment	
2024	Postdoctoral Research Grant Holder , National Institute of Astrophy vatory of Trieste, Trieste, Italy	vsics - Astronomical Obser-
2023-24	Postdoctoral Research Fellow , <i>Tata Institute of Fundamental Resea</i> Department of Theoretical Physics	rch, Mumbai, India
	Education	
2019-23	 PhD in Physics, University of Nottingham, Nottingham, UK Supervisors: Dr James S Bolton, Dr Nina Hatch Thesis: Simulating neutral hydrogen across cosmic time: the 21-cm forest in the global 21-cm signal at cosmic dawn Vice-Chancellor's Scholarship for Research Excellence Graduated July 2023 	late reionization models and
2014-19	MPhys in Physics, Astrophysics , <i>The University of Edinburgh</i> , Edin • Graduated July 2019 with the First Class	burgh, UK
2016-17	Exchange program , <i>California Institute of Technology</i> , Pasadena, US o GPA: 3.3	A
	Technical Experience	
2018-19	 MPhys Project, The University of Edinburgh, Edinburgh, UK Extreme Variability of Active Galactic Nuclei (report) Supervisor: Prof Andy Lawrence Tested black hole accretion disc models in the context of extreme variabili Included a public summary (created a card game) 	ty of AGN luminosity
	Cormack Vacation Research Scholarship and Deans' Vacation S for Astronomy, Edinburgh, UK 21cm Signal Marking the End of Dark Ages (report, poster) Supervisor: Dr José Oñorbe • Mock observations of global 21cm signal with focus on Dark Ages based of	Scholarship , <i>The Institute</i> on Nyx simulations
2018 ——•	 Senior Honours Project, The University of Edinburgh, Edinburgh, U Scalar Field Dark Energy Supervisor: Prof Andy Taylor Simulated the expansion of the universe driven by dark energy modeled as 	K a dynamical scalar field
2017-18	Telescope Group Project , <i>The University of Edinburgh</i> , Edinburgh, Measurement of the Characterising Properties of Exoplanet TrES-2b and its	UK Host Star
2017	 Supervisor: Prof Philip Best Transit Photometry and Doppler Spectroscopy methods Observations performed with Edinburgh University's Meade MAX 20in AC 	F telescope
	Summer Undergraduate Research Fellowship, <i>Caltech</i> , Pasadena, Redefining the Habitable Zone Supervisor: Prof David J. Stevenson O Determining conditions under which water in liquid phase can be present of	USA
2017	 Research in Experimental Physics, Caltech, LIGO, Pasadena, USA Signal Processing Supervisor: Dr Thomas J. Massinger O Data analysis and investigation of glitches in data 	
	Publications	

☑ tomas.soltinsky@inaf.it

E Puchwein, J S Bolton, L C Keating, et al. "The Sherwood-Relics simulations: overview and impact of patchy reionization and pressure smoothing on the intergalactic medium", in MNRAS, Volume 519, Issue 4, pp.6162-6183, 2023. (link)

T Šoltinský, J S Bolton, M Molaro, et al. "Probing quasar lifetimes with proximate 21-centimetre absorption in the diffuse intergalactic medium at redshifts $z \ge 6$ ", in *MNRAS*, Volume 519, Issue 2, pp.3027-3045, 2023. (link)

T Šoltinský, J S Bolton, N Hatch, et al. "The detectability of strong 21-cm forest absorbers from the diffuse intergalactic medium in late reionization models", in *MNRAS*, Volume 506, pp. 5818-5835, 2021. (link)

C S Cockell, "Astrobiology: Understanding Life in the Universe", *Wiley-Blackwell*, 2015 $_{\odot}$ Contributed to and was cited in the Preface to the book

Memberships

SKA-India SWG, link

LSST-DESC, Large scale structure WG, provisional membership, link Sherwood-Relics simulation suite, link

Conferences, Meetings, Talks, Lectures

The First Gigayear(s), Hilo Hawaiian Hotel, Hilo, Hawai'i, Talk

- **The Origin and Evolution of Supermassive Black Holes**, *Sexten Center for Astrophysics*, Sexten, Italy, Talk (link 1,link 2)
- Cosmic Dawn at High Latitudes Conference, Royal Swedish Academy of Sciences, Stockholm, Sweden, Talk (link)
- **State of the Universe**, *Tata Institute of Fundamental Research*, Mumbai, India, Seminar (link)
- **Cosmology in the Alps Conference**, Les Diablerets, Switzerland, Talk (link)
 - **Monday Afternoon Talks**, *MIT Kavli Institute for Astrophysics and Space Research*, Cambridge, US, Talk
- Pune-Mumbai Cosmology and Astro-Particle meeting, The Inter-University Centre for Astronomy and Astrophysics, Pune, India, Talk and Chaired a session (link)

Astronomical Society of India meeting, Indian Institute of Science, Bengaluru, India, Talk

HEA group meeting, Masaryk University, Brno, Czechia, Seminar

- Advanced 21-cm Cosmology School and Workshop, National Institute of Science Education and Research, Bhubaneswar, India, Lectures (link)
- Astrophysics Seminar, University of Helsinki, Helsinki, Finland, Seminar

Galaxy coffee, Max Planck Institute for Astronomy, Heidelberg, Germany, Talk

21-cm Series Seminar, University of Cambridge, Cambridge, UK, Seminar

Colloquium, National Centre for Radio Astrophysics, Pune, India, Colloquium

Lunch talk, The University of Nottingham, Nottingham, UK, Talk

Physics PG Poster Competition, The University of Nottingham, Nottingham, UK, Poster

21-cm Series Seminar, University of Cambridge, Cambridge, UK, Seminar

State of the Universe, Tata Institute of Fundamental Research, Mumbai, India, Seminar (link)

National Astronomical Meeting (NAM2021), *The University of Bath*, Bath, UK, Talk SAZERAC 2.0, Recorded talk (link)

Lunch talk, The University of Nottingham, Nottingham, UK, Talk

Tessella Poster Competition, The University of Nottingham, Nottingham, UK, Poster

Quasars and Galaxies on the Edge of Cosmic Reionisation, *Royal Astronomical Society*, UK, Flash poster

Early Career Poster Exhibition, *Royal Astronomical Society*, UK, Poster (link) Lunch talk, *The University of Nottingham*, Nottingham, UK, Talk

Schools, Courses

Foundation HPC-Skills Course, DiRAC

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	Extracurricular Activities		
2021	Mentoring at GROWNi.sk, Slovakia • Advising students in their career and study decisions		
2016	Outreach talks , <i>Pavol Horov Gymnasium</i> , Michalovce, Slovakia "From LA to LA", Topic: gained experience and how to study abroad "Science has no borders", Topic: my research experience and ongoing research in the world 		
2023-24	State of the Universe Seminar Series Organizer , <i>Tata Institute of Fundamental Research</i> , Mumbai, India		
	Astronomy Postgraduate Student Representative , <i>The University of Nottingham</i> , Nottingham, UK • Main point of communication between PG students and staff		
2021-22	Lunch Talks Organizer, The University of Nottingham, Nottingham, UK		
2019-22	Physics Coursework Marker, The University of Nottingham, Nottingham, UK		
2017-21	Student Ambassador , <i>The University of Edinburgh and the University of Nottingham</i> , Edinburgh and Nottingham, UK		
2018	 Resided over the information desk and gave tours of the campus and the School of Physics and Astronomy at the Open Days, Post-offer Visit Days, Visiting Students Welcome Event 		
	UUKi Parliamentary Reception for the Go International:Stand Out Campaign,Westminster, London, UKO Ambassador for The University of Edinburgh		
	Awards		
2018	RSE Cormack Undergraduate Astronomy Research Prize , <i>Royal Society of Edinburgh</i> , Edinburgh, UK For the "21cm Marking the End of Dark Ages" project		
2016	Year 2 Physics Class medal. The University of Edinburgh. Edinburgh. UK		
	For excellent performance during the 2015/16 session		
•	The memorial letter of St. Gorazd , <i>The Ministry of Education, Science, Research and Sport of the Slovak Republic</i> , Bratislava, Slovakia For successful representation of the Slovak Republic at Austrian Young Physicists' Tournament and		
2014	achievement of bronze medal Best in Natural Sciences school award, Pavol Horov Gymnasium, Michalovce, Slovakia For representation of the school at various Physics and Maths competitions		
	Skills		
Programming	Python, Jupyter notebook, C, LATEX, Mathematica, basic in IDL		
_ 0	Radiative Transfer, OpenMP parallelisation, 21cmFAST, IRAF, SExtractor		
	Large data analysis (binary and HDF5 formats)		