

# JACO DE SWART

University of Cambridge  
Free School Lane, Cambridge, UK  
jgd39@cam.ac.uk

## ACADEMIC APPOINTMENTS

---

**University of Cambridge** 09-2025 / 08-2027  
Marie Sklodowska-Curie Postdoctoral Fellow, Department of History  
and Philosophy of Science & Institute of Astronomy  
Mentors: Richard Staley & Hiranya Peiris

**Massachusetts Institute of Technology** 08-2022 / 07-2025  
American Institute of Physics Helleman Postdoctoral Fellow,  
Program in STS & Center for Theoretical Physics  
Mentor: David Kaiser

**University of Amsterdam** 11-2021 / 06-2022  
Postdoctoral Researcher, Department of Anthropology  
Mentor: Annemarie Mol | FTE: 0.8

### *Visiting Appointments*

**University of California, Santa Cruz** 01-2025 / 06-2025  
Visiting Fellow, Science and Justice Research Center & History of  
Consciousness | Host: Maria Puig de la Bellacasa

**Institute for Advanced Study, Princeton** 09-2019 / 11-2019  
Visiting Researcher, Program of Interdisciplinary Studies  
Host: Piet Hut

**Princeton University** 09-2014 / 11-2014  
Visiting Researcher, Dept. of Astrophysical Sciences & History of  
Science | Hosts: David Spergel, Michael Gordin

## EDUCATION

---

**PhD History & Philosophy of Physics** University of Amsterdam; FTE: 0.8 2022  
Dissertation: "How Dark Matter Came to Matter: A History of Missing Mass"  
Supervisors: Jeroen van Dongen, Erik Verlinde, Gianfranco Bertone  
**MSc Theoretical Physics** University of Amsterdam 2016  
**MA Philosophy** University of Amsterdam 2013  
**BA Philosophy** University of Amsterdam 2011  
**BSc Physics** University of Amsterdam 2010

## PUBLICATIONS

---

### **Books**

de Swart, J. *How the Universe Went Missing: A History of Dark Matter*. Cambridge, MA:  
MIT Press. Under contract; expected 2027

**Journal Articles**

- de Swart, J., & Mol, A. (2025). Cleaning a Dark Matter Detector: A Case of Ontological and Normative Elusiveness. *Social Studies of Science*. o(o)
- Argüelles, C, et al. [including de Swart, J.] (TAMBO Collaboration) (2025). TAMBO: A Deep-Valley Neutrino Observatory. arXiv e-Print: 2507.08070
- de Swart, J. (2024). Five decades of missing mass. *Physics Today*, 77(8), 34-43
- de Swart, J., Thresher, A.C., & Argüelles, C. A. (2024). The humanities can help make physics greener. *Nature Review Physics*, 6, 404-405
- de Swart, J., Bertone, G. & van Dongen, J. (2017). How dark matter came to matter. *Nature Astronomy*, 1, 0059

**Book Chapters**

- de Swart, J. (2020). Cosmology's Rebirth and the Rise of the Dark Matter Problem. In: A. Blum, R. Lalli and J. Renn (eds.), *The Renaissance of General Relativity in Context. Einstein Studies*, vol. 16. London: Birkhauser

**Book Reviews**

- de Swart, J. (2021). Schemervluchten. [Review of the book *Vesper Flights*, by Helen Macdonald], *New Scientist NL*, 3 July 2021
- de Swart, J. (2019). Deciphering dark matter: the remarkable life of Fritz Zwicky [Review of the book *Zwicky*, by John Johnson], *Nature*, 573, 32-33

**Other**

- de Swart, J. (2025). A Brief Chronicle of Missing Mass. In: C. Webb (ed.), *Proxima Kósmos: Theories and Visions*. Los Angeles: Berggruen Institute
- de Swart, J. (2017). How we lost 85% of the universe. *Viewpoint*, 113, 11

**Works under Review**

- de Swart, J. (2026). Neutrinos and the Rise of the WIMP. *Nature Review Physics*. (Commissioned, under review.)

**GRANTS, HONORS & AWARDS**

---

<b>John Templeton Foundation, TAMBITO Experiment (\$ 1.8M)</b>	2026
<i>Co-PI with Carlos Argüelles (Harvard), for responsible site selection and construction of a pathfinder neutrino experiment in the Peruvian Andes</i>	
<b>Marie Skłodowska-Curie Actions Postdoctoral Fellowship (€220k)</b>	2025
<i>Project: The Nature of Reality and the Reality of Nature: Resources and Waste in the Search for Dark Matter (Evaluation score: 99.60 %)</i>	
Member-at-Large, American Physical Society	2025
<b>AIP Helleman Memorial Postdoctoral Fellowship (\$220k)</b>	2022
<i>Project: A History of the Particle Universe: How Dark Matter Connected the Very Large and the Very Small</i>	
Dutch Society for the Advancement of Science and Medicine, Travel Grant (€2k)	2019
American Institute of Physics, Center for History of Physics, Grant-in-Aid (\$5k)	2014

## TEACHING

---

<i>University of Cambridge:</i>	
<b>Writing Support Seminar</b>	2025
History and Philosophy of Science Department, Lecturer	
<i>University of Amsterdam:</i>	
<b>The Science and Life of Albert Einstein</b>	2019/2020/2021
Institute of Physics, Teaching Assistant	
<b>Reflection on Physics</b>	2019/2020
Institute of Physics, Teaching Assistant	
<b>Science in Action</b>	2019
Van 't Hoff Institute for Molecular Sciences, Teaching Assistant	
<b>Undergraduate Mentor</b>	2016-2018
Institute for Interdisciplinary Studies, Mentor	
<b>Bachelor Research Projects</b>	2016/2017/2018
Institute for Interdisciplinary Studies, Supervisor	
<b>Philosophy of Science</b>	2016/2017/2018
Institute for Interdisciplinary Studies, Lecturer	
<b>Turning Points in the Natural Sciences</b>	2014/2015/2016
Institute for Interdisciplinary Studies, TA & Coordinator	
<b>Electricity and Magnetism</b>	2010
Institute of Physics, Teaching Assistant	

## PROFESSIONAL ACTIVITIES

---

<b>Affiliate:</b> Trinity College, University of Cambridge	2026-
<b>Executive Committee:</b> SCAN STS Network Cambridge (UK)	2025-
<b>Member-at-Large:</b> APS Forum on the History and Philosophy of Physics	2025-
<b>Executive Committee:</b> TAMBO neutrino experiment collaboration (Co-PI: C. Argüelles, Harvard U.)	2024-
<b>Member:</b> Next-Generation Event Horizon Telescope: History, Philosophy, and Culture Working Group, Black Hole Initiative, Harvard University	2023-
<b>Reviewer:</b> MIT Press, Studies in History and Philosophy of Modern Physics, European Journal for Philosophy of Science, Centaurus, Annals of Science	2018-
<b>Member:</b> Advisory Board of Institute for Interdisciplinary Studies, UvA	2017-2022
<b>Member:</b> Faculty of Science PhD Council, University of Amsterdam	2016-2018

## ORGANIZED SYMPOSIA & CONFERENCES

---

<b>Cambridge STS Network Fishbowl</b>	11-2026
Kickoff meeting for a Cambridge (UK) STS Network, co-organizer	
<b>The End of Purity: Contaminations and Cleanups in the Anthropocene</b>	09-2025
4S meeting in Seattle (US), '25	
<b>Putting Space in Place: Earthly Impacts of Astronomy and Space Science</b>	07-2025
Symposium at the International Congress of History of Science and Tech. '25 (NZ)	
<b>Un/Clean Science</b>	07-2024
Panel at EASST/4S meeting in Amsterdam (NL), '24	
<b>Equitable Astrophysics</b>	01-2024

Harvard Radcliffe workshop on responsible experiment siting, co-organizer <b>Harvard-Princeton-MIT 'Phunday'</b>	04-2023
Workshop in the history of the physical sciences, Princeton (US), co-organizer <b>Ways of Knowing the Universe</b>	11-2021
Panel at History of Science Society (HSS) annual meeting '21, online <b>Dutch Graduate Conference in History of Science</b>	02-2019
Rolduc Abbey, Kerkrade (NL), co-organizer <b>Philosophy of Astrophysics in Practice</b>	07-2018
Philosophy of Science in Practice '18, Ghent (BE) <b>First Tylers Meeting on History of Astronomy and Physics</b>	04-2017
Tylers Museum, Haarlem (NL), co-organizer	

## MEDIA APPEARANCES

---

### Video

- NOVA PBS, 'Decoding the Universe: Cosmos' (22.05.2024)
- NTR Kokhuis, 'Donkere Materie' [Dark Matter] (07.10.2023)
- Universiteit van Nederland, 'Wat is donkere materie' [What is Dark Matter?] (24.05.2022)
- RTL 4, 'Beau', table guest on black holes (12.05.2022)
- Folia Magazine, on *Nature Astronomy* publication (02.03.2017)

### Newspaper

- Het Parool, 'Kosmoloog Jaco de Swart' (02.08.2025)
- NRC, 'De Zoektocht naar Donkere Materie' [The Search for Dark Matter] (14.10.2022)
- New Scientist NL, 'New Eyes on the Universe' (18.05.2022)
- De Volkskrant, 'Materie Myserie' [Matter Myserie] (29.04.2022)
- Het Parool, 'De Geboorte van Donkere Materie' [The Birth of Dark Matter] (19.02.2022)
- Algemeen Dagblad, 'Eureka' column (07.11.2020)
- Folia Magazine, on rock-'n'-roll academy (08.10.2020)

### Podcasts

- Verrukkelijke Wetenschap, 'Wat is donkere materie?' (26.10.2022)
- Universiteit van Nederland, 'Wat is donkere materie' (09.01.2022)
- Radio Swammerdam, on dark matter (18.02.2019)
- Makkelijk Praten Podcast, on dark matter research (27.08.2018)

### Radio

- NPO Radio 1, 'Nieuws&Co', interview (31.12.2025)
- NPO Radio 1, 'OVT', on Maarten Schmidt (25.09.2022)
- NPO Radio 1, 'De nacht van' (14.04.2022)
- NPO Radio 1, 'OVT', on dark matter (19.01.2022)
- Nationale Wetenschapsagenda, live stream on black holes (7.10.2021)
- New Scientist, book release 'Steven Hawking' (08.09.2020)
- NPO Radio 1, on new dark matter results (02.08.2020)

### Book Features

- Jansen, J. & Jansen, D. (2025). *Sterrenkunde, Seks & Serendipiteit*. Fontaine Uitgevers, pp.1-2
- Jansen, J. & Jansen, D. (2020). *Corona tot Z*. Fontaine Uitgevers, pp. 35-36

## PUBLIC SPEAKING & OUTREACH

---

<b>VPRO Tegenlicht @ Lowlands</b>	2025
Speaker at large Dutch pop music festival for <i>VPRO Tegenlicht</i>	
<b>Getty Museum, Los Angeles</b>	2025
Proxima Kosmos: Art-Science project exploring speculative planetary habitability	

<b>Expeditie NEXT</b>	2022/2026
Presenter at national children science festival.	
<b>Rock 'n' Roll Academy</b>	2020
Science & music talk organizer at Hard Rock Hotel	
<b>Veronica Academy</b>	2019-2020
Presenter video webseries on the science of science fiction	
<b>EYE Filmmuseum</b>	2018
Speaker at opening Ryoji Ikeda exhibition	
<b>Studio Max Live</b>	
Live science news guest at Dutch talk show	2013-2014

## INVITED TALKS

---

CERN, 4 <sup>th</sup> History of Particle Physics Symposium (CH)	11-2025
Cambridge University, Anthropocene Seminar (UK)	10-2025
Trimble Lecture, American Institute of Physics (US)	04-2025
UC Santa Cruz, History of Consciousness Department, Seminar (US)	03-2025
Getty Museum, Berggruen Institute of Los Angeles (US)	02-2025
University of Chicago, Kavli Institute for Cosmological Physics, Seminar (US)	04-2024
Harvard University, Laboratory for Particle Physics and Cosmology, Seminar (US)	01-2024
Harvard University, Black Hole Initiative, Foundations Seminar (US)	12-2023
Columbia University, Department of Physics, Colloquium (US)	10-2023
Cornell University, Department of STS (US)	10-2023
UPenn, Department of History and Sociology of Science (US)	10-2023
Yale University, History and Foundations of Physics, Workshop (US)	04-2023
UC Santa Cruz, Santa Cruz Institute for Particle Physics (US)	03-2023
MIT, Laboratory of Nuclear Science (US)	10-2022
Vossius Center for History of Humanities and Sciences, Amsterdam (NL)	05-2022
Institute for Advanced Study, Princeton NJ (US)	10-2019
National Air and Space Museum, Washington DC (US)	10-2019
Complutense University Madrid, Department of Philosophy (ES)	06-2019
University of Groningen, Kapteyn Institute for Astronomy Seminar (NL)	06-2019
RWTH Aachen, Philosophy of Dark Matter Conference (DE)	02-2019
Karlsruhe Institute of Technology, Particle Physics Seminar (DE)	01-2019
King's College London, European Astro-particle Physics Meeting (EN)	12-2018
University of Heidelberg (DE)	06-2018
National Institute for High Energy Physics, Nikhef (NL)	12-2017

## CONFERENCE TALKS

---

4S, Seattle (US)	09-2025
International Congress of History of Science and Tech. '25 (NZ)	07-2025
EASST/4S, Amsterdam (NL)	07-2024
American Philosophical Society, Philadelphia (Online)	06-2020
Dutch Graduate Conference in History of Science, Rolduc (NL)	02-2019
Society for Philosophy of Science in Practice, Ghent (BE)	07-2018
European Philosophy of Science Association, Dusseldorf (DE)	09-2015
Society for Philosophy of Science in Practice, Aarhus (DK)	06-2015
Dutch Graduate Conference in Philosophy, Nijmegen (NL)	03-2015

## OTHER

---

- Forest Gardener** at *Voedselbos Groen Groesbeek* 2025 –  
Founder of a regenerative food forest project in Groesbeek (NL), on the 12-acre former nursery of my parents. Obtained €20k in subsidies from WNF, Trees4All
- Bassist** in semi-professional rock band *X Raiders* 2008 –  
Highlights include shows on Dutch national television, a tour in Taiwan, full-length VPRO documentary, and collaboration with a Grammy-nominated producer
- City cleaning** at volunteering collective *TroepTroep* 2020 - 2022  
Founder of a large collective to clean the streets of Amsterdam of litter. Highlights include a large interview in a Dutch newspaper.
- Language**  
Dutch – Native; English - Fluent; German – Conversational.

## REFERENCES

---

- Prof. David Kaiser**, Massachusetts Institute of Technology, [dikaiser@mit.edu](mailto:dikaiser@mit.edu)  
**Prof. Annemarie Mol**, University of Amsterdam, [a.mol@uva.nl](mailto:a.mol@uva.nl)  
**Prof. Carlos Argüelles-Delgado**, Harvard University, [carguelles@fas.harvard.edu](mailto:carguelles@fas.harvard.edu)  
**Prof. Jeroen van Dongen**, University of Amsterdam, [j.e.a.f.vandongen@uva.nl](mailto:j.e.a.f.vandongen@uva.nl)  
**Prof. Gianfranco Bertone**, University of Amsterdam, [g.bertone@uva.nl](mailto:g.bertone@uva.nl)