



# UNIVERSITÀ DEGLI STUDI DI MILANO

TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B post-doc fellowship

**Andrew Sellek**

## CURRICULUM VITAE

### PERSONAL INFORMATION

Surname	Sellek
Name	Andrew
Date of birth	07 October 1996

### PRESENT OCCUPATION

Appointment	Structure
PhD Student (2019-2023)	Institute of Astronomy, University of Cambridge

### EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Degree	Natural Sciences (Astrophysics)	University of Cambridge	2019
Specialization			
PhD	Astronomy	University of Cambridge	2023 (Expected)
Master	Natural Sciences (Astrophysics)	University of Cambridge	2019
Degree of medical specialization			
Degree of European specialization			
Other			



# UNIVERSITÀ DEGLI STUDI DI MILANO

## REGISTRATION IN PROFESSIONAL ASSOCIATIONS

Date registration	of Association	City
2022	Royal Astronomical Society	London

## FOREIGN LANGUAGES

Languages	level of knowledge
English	Fluent: Native speaker
Spanish	Moderate: UK GCSE
Mandarin (Chinese)	Moderate: UK GCSE

## AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2019	<b>Institute of Astronomy Prize</b> ( <i>showing the greatest distinction in final year examinations</i> )
2018	<b>Winifred Georgia Holgate Pollard Memorial Prize</b> ( <i>outstanding performance in Natural Sciences Tripos</i> )
2016/2017/2018	<b>Senior Scholar</b> of Trinity College, University of Cambridge

## TRAINING OR RESEARCH ACTIVITY

description of activity
-------------------------

## PROJECT ACTIVITY

Year	Project
2018-2019	Masters Thesis Project: <i>Planet formation under the influence of external photoevaporation</i>
2019-2023	PhD Thesis Project: <i>The Importance of Photoevaporation in the Evolution of Protoplanetary Discs</i>

## PATENTS

Patent
N/A

## CONGRESSES AND SEMINARS

Date	Title	Place
------	-------	-------



## UNIVERSITÀ DEGLI STUDI DI MILANO

01/2021	<i>A Dusty Origin for the Correlation Between Protoplanetary Disc Accretion Rates and Dust Masses</i>	Institute of Astronomy, University of Cambridge, UK
01/2021	<i>The Importance of Photoevaporation in the Evolution of Protoplanetary Discs</i>	Origins Seminar, University of Arizona, US
02/2022	<i>Impact of Photoevaporation on the Composition of Planet Forming Discs</i>	IPLU Science Day, University of Cambridge, UK
04/2022	<i>Columns, Cooling, and Chemistry in Models of Photoevaporative Winds</i>	Planet Formation & Exoplanets Journal Club, University of Arizona, US
06/2022	<i>Columns, cooling &amp; chemistry - what determines the driving radiation of photoevaporative winds?</i>	Photoevaporation Microworkshop, University of Cambridge, UK
06/2022	<i>Getting ready for JWST: modelling the Ne II emission from disc winds using self-similar models</i>	Photoevaporation Microworkshop, University of Cambridge, UK
06/2022	<i>Compositions of externally photoevaporating discs and their winds</i>	Photoevaporation Microworkshop, University of Cambridge, UK
10/2022	<i>Modelling the Emission from Winds from Photoevaporating Protoplanetary Discs</i>	Cambridge Exoplanet Seminar, University of Cambridge, UK
10/2022	<i>The Prospect of Metal Depletion in Winds from Externally Photoevaporating Discs</i>	"Formation, evolution and dispersal of protoplanetary discs" Specialist Meeting, Royal Astronomical Society, London, UK
01/2022	<i>The Interplay of Dust Evolution in Protoplanetary Discs with Accretion, Winds &amp; Chemistry</i>	Astrochemistry Seminar, University of Leiden, Netherlands

### PUBLICATIONS

Books
N/A

Articles in journals
"The evolution of dust in discs influenced by external photoevaporation", MNRAS Volume 492 Issue 1, Oxford University Press, 2020 by <b>Sellek A. D.</b> , Booth R. A., Clarke C. J.
"A dusty origin for the correlation between protoplanetary disc accretion rates and dust masses", MNRAS Volume 498 Issue 2, Oxford University Press, 2020 by <b>Sellek A. D.</b> , Booth R. A., Clarke C. J.
"Proplyds in the flame nebula NGC 2024", MNRAS Volume 501 Issue 3, Oxford University Press, 2021 by Haworth, T. J., Kim, J. S., Winter, A. J., Hines, D. C., Clarke, C. J., <b>Sellek, A. D.</b> , Ballabio, G., Stapelfeldt, K. R.
"The general applicability of self-similar solutions for thermal disc winds", MNRAS Volume 506 Issue 1, Oxford University Press, 2021 by <b>Sellek A. D.</b> , Clarke C. J., Booth R. A.
"The evolution of protoplanetary discs in star formation and feedback simulations", MNRAS Volume 512 Issue 3, Oxford University Press, 2022 by Qiao L., Haworth T. J., <b>Sellek A. D.</b> , Ali A. A.
"The importance of X-ray frequency in driving photoevaporative winds", MNRAS Volume 514 Issue 1, Oxford University Press, 2022 by <b>Sellek A. D.</b> , Clarke C. J., Ercolano, B.



Congress proceedings

N/A

## OTHER INFORMATION

### Academic Services:

2022 - Present: Referee for A&A

2022 - Present: Institute of Astronomy Teaching Committee Postgraduate Student Representative

2019 - 2020: Organiser of Journal and Academic Skills Club for Undergraduate Students

### Teaching/Supervision:

2019 - 2022: Supervision of First Year Natural Sciences Students: Mathematical Methods I/II/III

2020 - 2023: Supervision of Third Year Astrophysics Students: Principles of Quantum Mechanics

2020 - 2023: Supervision of Third Year Physics/Astrophysics Students: Astrophysical Fluid Dynamics

2022 - 2023: Co-supervision of Masters' Student: Natasha Goodman

### Relevant Computing Skills:

**Programming Languages:** C/C++, Python, Fortran

**Astronomical Codes/Tools:** fargo3d (Hydrodynamics), pluto (Hydrodynamics), prizmo (Thermochemistry), mocassin (Radiative Transfer), mirisim (JWST MIRI Simulator), JWST Pipeline

### Referees:

Professor Cathie Clarke (Institute of Astronomy, University of Cambridge): [cclarke@ast.cam.ac.uk](mailto:cclarke@ast.cam.ac.uk)

Professor Barbara Ecolano (Ludwig-Maximilians-Universität): [ercolano@usm.uni-muenchen.de](mailto:ercolano@usm.uni-muenchen.de)

Dr Richard Booth (University of Leeds): [r.a.booth@leeds.ac.uk](mailto:r.a.booth@leeds.ac.uk)

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Place and date: University of Cambridge 16/01/23.

SIGNATURE

A Selleg