

# Ricarda Beckmann

I am an early career researcher in computational astrophysics. I use simulations to understand the coevolution of galaxies and supermassive black holes across cosmic time, with a particular focus on black hole accretion, feedback and dynamics. I am passionate about working with students, teaching astrophysics and providing a supportive working environment for all.

## CONTACT DETAILS

Kavli Institute for Cosmology  
University of Cambridge  
Madingley Road,  
Cambridge, CB3 0HA

+44 (0) 7930636583  
[ricarda.beckmann@ast.cam.ac.uk](mailto:ricarda.beckmann@ast.cam.ac.uk)  
[ricardabeckmann.github.io](https://github.com/ricardabeckmann)

## RESEARCH EXPERIENCE & EDUCATION

Nov 2020 - Current | University of Cambridge

**Ruth Holt research fellow**, Newnham College

Nov 2017 - Oct 2020 | Institut d'Astrophysique de Paris, France

**Postdoctoral Researcher**

Oct 2013 - Oct 2017 | University of Oxford, UK

DPhil in Astrophysics - "From seed to supermassive: simulating the origin, evolution and impact of massive black holes"

Oct 2008 - Aug 2012 | Imperial College London, UK

MSci in Physics with First Class Honours

(grade average: 81.1%)

## PUBLICATION SUMMARY

**16 accepted refereed publications** + 2 submitted

Total of 433 citations, **h-index=10** for refereed publications ([ui.adsabs.harvard.edu](http://ui.adsabs.harvard.edu))

## TEACHING & STUDENT SUPERVISION

July 2021 - Current | Summer student supervisor, Cambridge, UK

"The impact of cooling on cold clouds in hot galaxy clusters"

June 2021 - Aug 2021 | Summer student supervisor, Cambridge, UK

"Thermal conduction and instability in dynamical friction"

Feb 2021 - May 2021 | Small-group **teaching** "**Astrophysical fluid dynamics**", 3rd year tutorials, Cambridge

Nov 2020 - Current | **PhD co-supervisor**, IAP, France

"Dynamical friction in a turbulent gaseous medium"

Oct 2020 - April 2021 | **Master project supervisor**, Cambridge

"Cold cloud shredding in hot galaxy clusters"

Aug 2019 - Current | **PhD co-supervisor**, IAP, France

"Super-eddington accretion across cosmic time"

Apr 2019 - Jul 2019 | **Master project supervisor**, IAP, France

"Super-eddington jets and black hole self-regulation"

Oct 2014 - Jul 2016 | Teaching assistant for Scientific Computing, University of Oxford

## INVITED SEMINARS & CONFERENCE TALKS

+ 11 contributed conference talks at international conferences

01/2021 University of Cambridge, UK  
12/2020 Maynooth University, Ireland  
11/2020 University of Cambridge, UK  
11/2020 Université de Toulouse, France  
10/2020 YAGN conference, Copenhagen  
05/2020 University of Marseille, France  
11/2019 University of Oxford, UK  
11/2018 Université de Toulouse, France  
11/2017 IAP, Paris, France  
04/2017 University of Oxford, UK

## LEADERSHIP

11/2021 - Current Member of Newnham College governing body, Cambridge  
08/2019 - 10/2020 Member of the **Anti-harassment committee, IAP**  
10/2015 - 07/2017 Graduate **peer support coordinator** for Balliol College Oxford  
10/2015 - 07/2016 Graduate mentor in Astrophysics  
10/2015 - 10/2016 **Division graduate student representative for Physics**  
10/2015 - 10/2016 Graduate living-out officer at Balliol College Oxford  
10/2014 - 10/2015 Graduate student representative for Astrophysics

## FUNDING AND RESOURCES

07/2021 Received 1700 GBP to fund summer student internship, Cambridge  
03/2021 Co-PI on computing time proposal, France (5.9 million CPUh)  
04/2021 Co-PI on computing time proposal, UK (>30 million CPUh)  
03/2020 Co-PI on computing time proposal, France (9.7 million CPUh)  
03/2019 Co-PI on computing time proposal, France (12.1 million CPUh)  
06/2019 Successfully supported a student in gaining a scholarship with the French National Doctoral School, France

## PRIZES & HONOURS

08/2012 Ken Allen Prize for **Academic Excellence**  
05/2009 - Jun 2012 Stipendiary of the German **National Merit Foundation**

## OUTREACH

07/2021 Invited guest appearance on "Multiscale musings" postcast  
2020 - 2021 3 YouTube outreach talks  
2014 - 2018 7 outreach talks in Oxford, London & Paris  
2015 Organised a **Conference for Undergraduate Women in Physics**, Oxford  
2014 - 2015 Science busking, Oxford  
2013 - 2017 Organised activities for "Stargazing Oxford"